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<213> Homo sapiens

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		675					680					685			
Glu	Lys	Gln	Ala	Ala	Thr	His	Val	Ser	Leu	Asp	Gln	Glu	Tyr	Asp	Ser
		690				695					700				
Glu	Ser	Ser	Gln	Gln	Trp	Arg	Glu	Leu	Glu	Glu	Gln	Val	Val	Ser	Val
705					710					715					720
Val	Asn	Lys	Gly	Val	Ile	Pro	Ser	Asn	Phe	His	Pro	Thr	Gln	Tyr	Cys
			725						730					735	
Leu	Asn	Ser	Tyr	Ser	Asp	Asn	Ser	Arg	Phe	Pro	Leu	Ala	Val	Val	Glu
			740					745					750		
Glu	Pro	Ile	Thr	Val	Glu	Val	Ala	Phe	Arg	Asn	Pro	Leu	Lys	Val	Leu
		755					760					765			
Leu	Leu	Leu	Thr	Asp	Leu	Ser	Leu	Leu	Trp	Lys	Phe	His	Pro	Lys	Asp
		770				775					780				
Phe	Ser	Gly	Lys	Asp	Asn	Glu	Glu	Val	Lys	Gln	Leu	Val	Thr	Ser	Glu
785					790					795					800
Pro	Glu	Met	Ile	Gly	Ala	Glu	Val	Ile	Ser	Glu	Phe	Leu	Ile	Asn	Gly
			805						810					815	
Glu	Glu	Ser	Lys	Val	Ala	Arg	Leu	Lys	Leu	Phe	Pro	His	His	Ile	Gly
			820					825					830		
Glu	Leu	His	Ile	Leu	Gly	Val	Val	Tyr	Asn	Leu	Gly	Thr	Ile	Gln	Gly
		835					840					845			
Ser	Met	Thr	Val	Asp	Gly	Ile	Gly	Ala	Leu	Pro	Gly	Cys	His	Thr	Gly
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Lys	Tyr	Ser	Leu	Ser	Met	Ser	Val	Arg	Gly	Lys	Gln	Asp	Leu	Glu	Ile
865					870					875					880
Gln	Gly	Pro	Arg	Leu	Asn	Asn	Thr	Lys	Glu	Glu	Lys	Thr	Ser	Val	Lys
			885						890					895	
Tyr	Gly	Pro	Asp	Arg	Arg	Leu	Asp	Pro	Ile	Ile	Thr	Glu	Glu	Met	Pro
			900					905					910		
Leu	Leu	Glu	Val	Phe	Phe	Ile	His	Phe	Pro	Thr	Gly	Leu	Leu	Cys	Gly
		915					920					925			
Glu	Ile	Arg	Lys	Ala	Tyr	Val	Glu	Phe	Val	Asn	Val	Ser	Lys	Cys	Pro
		930					935				940				
Leu	Thr	Gly	Leu	Lys	Val	Val	Ser	Lys	Arg	Pro	Glu	Phe	Phe	Thr	Phe
945					950					955					960
Gly	Gly	Asn	Thr	Ala	Val	Leu	Thr	Pro	Leu	Ser	Pro	Ser	Ala	Ser	Glu
			965						970					975	
Asn	Cys	Ser	Ala	Tyr	Lys	Thr	Val	Val	Thr	Asp	Ala	Thr	Ser	Val	Cys
			980						985				990		
Thr	Ala	Leu	Ile	Ser	Ser	Ala	Ser	Ser	Val	Asp	Phe	Gly	Ile	G	

1075	1080	1085
Asn Ser Leu Glu	Asn Glu Glu Gly Arg Gly Gly	Asn Met Leu Val Phe
1090	1095	1100
Val Asp Val Glu	Asn Thr Ser Glu Ala Gly Val	Lys Glu Phe
1105	1110	1115
His Ile Val Gln	Val Ser Ser Ser Lys His Trp	Lys Leu Gln Lys
1125	1130	1135
Ser Val Asn Leu	Ser Glu Asn Lys Asp Ala Lys	Leu Ala Ser Arg Glu
1140	1145	1150
Lys Gly Lys Phe	Cys Phe Lys Ala Ile Arg Cys	Glu Lys Glu Glu Ala
1155	1160	1165
Ala Thr Gln Ser	Ser Glu Lys Tyr Thr Phe Ala	Asp Ile Ile Phe Gly
1170	1175	1180
Asn Glu Gln Ile	Ile Ser Ser Ala Ser Pro Cys	Ala Asp Phe Phe Tyr
1185	1190	1195
Arg Ser Leu Ser	Ser Glu Leu Lys Lys Pro Gln	Ala His Leu Pro Val
1205	1210	1215
His Thr Glu Lys	Gln Ser Thr Glu Asp Ala Val	Arg Leu Ile Gln Lys
1220	1225	1230
Cys Ser Glu Val	Asp Leu Asn Ile Val Ile Leu	Trp Lys Ala Tyr Val
1235	1240	1245
Val Glu Asp Ser	Lys Gln Leu Ile Leu Glu Gly	Gln His His Val Ile
1250	1255	1260
Leu Arg Thr Ile	Gly Lys Glu Ala Phe Ser Tyr	Pro Gln Lys Gln Glu
1265	1270	1275
Pro Pro Glu Met	Glu Leu Leu Lys Phe Phe Arg	Pro Glu Asn Ile Thr
1285	1290	1295
Val Ser Ser Arg	Pro Ser Val Glu Gln Leu Ser	Ser Leu Ile Lys Thr
1300	1305	1310
Ser Leu His Tyr	Pro Glu Ser Phe Asn His Pro	Phe His Gln Lys Ser
1315	1320	1325
Leu Cys Leu Val	Pro Val Thr Leu Leu Leu Ser	Asn Cys Ser Lys Ala
1330	1335	1340
Asp Val Asp Val	Ile Val Asp Leu Arg His Lys	Thr Thr Ser Pro Glu
1345	1350	1355
Ala Leu Glu Ile	His Gly Ser Phe Thr Trp Leu	Gly Gln Thr Gln Tyr
1365	1370	1375
Lys Leu Gln Leu	Lys Ser Gln Glu Ile His Ser	Leu Gln Leu Lys Ala
1380	1385	1390
Cys Phe Val His	Thr Gly Val Tyr Asn Leu Gly	Thr Pro Arg Val Phe
1395	1400	1405
Ala Lys Leu Ser	Asp Gln Val Thr Val Phe Glu	Thr Ser Gln Gln Asn
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Ser Met Pro Ala	Leu Ile Ile Ile Ser Asn Val	
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<210> 3915

<211> 1802

<212> DNA

<213> Homo sapiens

<400> 3915

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180
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240
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300
gatatggatg ggtaccacgc attaaagggtg gacaaagaga ccaacacgga gaccccgcc
360
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420
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480
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540
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720
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780
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1140
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1260
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1320
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1680

cccagtgaag ccactaacat gaggtagggg agggctgtgg ggaactccat tcagttttat
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1800
aa
1802

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<211> 342
<212> PRT
<213> Homo sapiens

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20 25 30
Ala Ser Thr Asp Ala Val Ser Ala Leu Leu Glu Gln Thr Ala Val Glu
35 40 45
Leu Glu Lys Arg Gln Glu Gly Arg Ser Ser Thr Gln Thr Leu Glu Asp
50 55 60
Ser Trp Arg Tyr Glu Glu Thr Ser Glu Asn Glu Ala Val Ala Glu Glu
65 70 75 80
Glu Glu Glu Glu Val Glu Glu Glu Gly Glu Glu Asp Val Phe Thr Glu
85 90 95
Lys Ala Ser Pro Asp Met Asp Gly Tyr Pro Ala Leu Lys Val Asp Lys
100 105 110
Glu Thr Asn Thr Glu Thr Pro Ala Pro Ser Pro Thr Val Val Arg Pro
115 120 125
Lys Asp Arg Arg Val Gly Thr Pro Ser Gln Gly Pro Phe Leu Arg Gly
130 135 140
Ser Thr Ile Ile Arg Ser Lys Thr Phe Ser Pro Gly Pro Gln Ser Gln
145 150 155 160
Tyr Val Cys Arg Leu Asn Arg Ser Asp Ser Asp Ser Thr Leu Ser
165 170 175
Lys Lys Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg
180 185 190
Met Lys Arg Pro Ser Pro Pro Pro Gln Pro Ser Ser Val Lys Ser Leu
195 200 205
Arg Ser Glu Arg Leu Ile Arg Thr Ser Leu Asp Leu Glu Leu Asp Leu
210 215 220
Gln Ala Thr Arg Thr Trp His Ser Gln Leu Thr Gln Glu Ile Ser Val
225 230 235 240
Leu Lys Glu Leu Lys Glu Gln Leu Glu Gln Ala Lys Ser His Gly Glu
245 250 255
Lys Glu Leu Pro Gln Trp Leu Arg Glu Asp Glu Arg Phe Arg Leu Leu
260 265 270
Leu Arg Met Leu Glu Lys Arg Gln Met Asp Arg Ala Glu His Lys Gly
275 280 285
Glu Leu Gln Thr Asp Lys Met Met Arg Ala Ala Ala Lys Asp Val His
290 295 300
Arg Leu Arg Gly Gln Ser Cys Lys Glu Pro Pro Glu Val Gln Ser Phe
305 310 315 320
Arg Glu Lys Met Ala Phe Phe Thr Arg Pro Arg Met Asn Ile Pro Ala

325
Leu Ser Ala Asp Asp Val
340

330

335

<210> 3917
<211> 597
<212> DNA
<213> Homo sapiens

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120
taacatcaga aacagggtgag aatgaccact ttaactcacc gggcccgctc cactgaaata
180
agcaagaact ctgaaaagaa gatggaaagt gaggaagaca gtaattggga gaaaagtcca
240
gacaatgaag attctggaga ctctaaggat atccgcctta ctcttatgga agaagtattg
300
cttctgggac taaaagataa agaggggtac acatctttct ggaatgactg catatcatca
360
ggcctgcgag ggggcacccct gatagagctg gccatgcggg gtcgaatcta tctggaaccc
420
ccgaccatgc gtaagaagcg actactagac agaaaggtag tgctaaagtc agacagccca
480
acagggtgatg ttttactgga tgaaactctg aaacacatca aagcaactga acccacagaa
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597

<210> 3918
<211> 152
<212> PRT
<213> Homo sapiens

<400> 3918
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20 25 30
Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu
35 40 45
Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
50 55 60
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
65 70 75 80
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
85 90 95
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser
100 105 110
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
115 120 125
Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

130
Glu Thr Trp Asn Pro Phe Lys Leu
145

135

150

140

<210> 3919

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 3919

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120
caggcacagc atccaccacg ccccatcaag tcctccagcg ccgactccac tcccagcccc
180
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240
gccaggctgc ggcgcgtcag gcaggagctg gaggataaga cagagcagct tgtggacacc
300
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360
ctagcggcag acgcccggtc tgctcgtgcc tatcgagacg agctggattc cctgcgggag
420
aaggcgaacc gcgtggagag gctggagctg gagctgacct gctgcaagga gaagctgcac
480
gacgtggact tctacaaggc ccgcatggag gagctgagag aagataatat cattttaatt
540
gaaaccaagg ccatgctgga ggaacagctg actgctgctc gggcccgggg cgataaagtc
600
catgagctgg aaaaggagaa cctgcagctg aaatccaagc ttcacgacct ggaattggac
660
cgggacacag ataagaaacg aattgaggag ctgctggaag aaaacatggt ccttgagatt
720
gcacagaagc agagcatgaa cgaatctgcc caccttggct gggagctgga gcagctgtcc
780
aagaacgcag acttgtcaga cgctccagg aagtcgtttg tgtttgagct gaacgaatgt
840
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960
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1020
aagcagagca accaagatct ggagaccctc agtgaggagc tgatcagaga gaaggagcag
1080
ctgcagagtg acatggagac cctgaaggct gacaaagcca ggagatcaa ggaccttgag
1140
caggaaaagg accacctcaa ccgagccatg tggtcgctgc gggagaggtc gcaggtcagc
1200
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1278

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<210> 3920

<211> 426

<212> PRT

<213> Homo sapiens

<400> 3920

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Arg Arg Leu Ile Asp Gln Arg Asp Glu Cys Thr Glu Leu Ile Val Asp
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Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro
 35           40           45
Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
 50           55           60
Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
 65           70           75           80
Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln
 85           90           95
Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
100           105           110
-----Lys-Val-Lys-Gln-Glu-Asn-Ile-Gln-Leu-Ala-Ala-Asp-Ala-Arg-Ser-Ala-----
115           120           125
Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
130           135           140
Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
145           150           155           160
Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
165           170           175
Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
180           185           190
Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
195           200           205
Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
210           215           220
Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
225           230           235           240
Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
245           250           255
Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
260           265           270
Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
275           280           285
Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp
290           295           300
Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu
305           310           315           320
Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
325           330           335
Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
340           345           350
Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
355           360           365
Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

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370	375	380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser		
385	390	395
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His		400
	405	410
Gln Thr Val Thr Glu Ala Asn Gly Lys Leu		415
	420	425

<210> 3921
 <211> 413
 <212> DNA
 <213> Homo sapiens

<400> 3921
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 120
 atgcctctgc tgcttgccag cctcgtgacc ttcattcatg cagggccttg ttttcttgat
 180
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 300
 ctccagccct tggagcttag gcagtgtagt gttaggatga ttattggatt tcctccacag
 360
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<210> 3922
 <211> 126
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg
 50 55 60
 Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala
 65 70 75 80
 Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg
 85 90 95
 Gln Cys Ser Val Arg Met Ile Ile Gly Phe Pro Pro Gln Phe Leu Ala
 100 105 110
 His Ser Phe Val Ala Leu Val Thr Ala Phe Cys Asp Asn Ile
 115 120 125

<210> 3923
 <211> 820

<212> DNA

<213> Homo sapiens

<400> 3923

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120

tctttctect cttgctgaag cttctgctcc atctctcgca ggactgggtc tgttggggcc
180

agaccacact cccactgggt ttgtcgcagt tttttaaggg agccattttg ttctaagtgc
240

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300

ctctcaacta gaacaccatt agtcagatca aaatgattta atgtcttcaa ttgttgcttt
360

gttttgagga ctccacccaa aacactgttt tggggtagca ctgaattaac tgtggtgatt
420

ttcatggctc tgcttatata ggttttgtct aacttggcat ctggagttga ccctaacccc
480

tcaaactgct cctctctcaa agaagtccca ctgcctcccc ctttgagttc tgaggaacag
540

caggtttcca gtgggatctc agtgctactt ttattatcac tgtcctgttc tgcttttgtt
600

tggttaacag aggggaaatg atcaagatca gcagaggtgg gtccagtata ctgagagagg
660

acctgcccac cagataatct tgtatttaca gccacaagtg gcttctcctt gctagaatgg
720

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<210> 3924

<211> 250

<212> PRT

<213> Homo sapiens

<400> 3924

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20 25 30

Ser Glu Tyr Thr Gly Pro Thr Ser Ala Asp Leu Asp His Phe Pro Ser
35 40 45

Val Ser Gln Thr Lys Ala Glu Gln Asp Ser Asp Asn Lys Ser Ser Thr
50 55 60

Glu Ile Pro Leu Glu Thr Cys Cys Ser Ser Glu Leu Lys Gly Gly Gly
65 70 75 80

Ser Gly Thr Ser Leu Glu Arg Glu Gln Phe Glu Gly Leu Gly Ser Thr
85 90 95

Pro Asp Ala Lys Leu Asp Lys Thr Cys Ile Ser Arg Ala Met Lys Ile
100 105 110

Thr Thr Val Asn Ser Val Leu Pro Gln Asn Ser Val Leu Gly Gly Val

115	120	125
Leu Lys Thr Lys Gln Gln Leu Lys Thr Leu Asn His Phe Asp Leu Thr		
130	135	140
Asn Gly Val Leu Val Glu Ser Leu Ser Glu Glu Pro Leu Pro Ser Leu		
145	150	155
Arg Arg Gly Arg Lys Arg His Cys Lys Thr Lys His Leu Glu Gln Asn		160
165	170	175
Gly Ser Leu Lys Lys Leu Arg Gln Thr Ser Gly Glu Val Gly Leu Ala		
180	185	190
Pro Thr Asp Pro Val Leu Arg Glu Met Glu Gln Lys Leu Gln Gln Glu		
195	200	205
Glu Glu Asp Arg Gln Leu Ala Leu Gln Leu Gln Arg Met Phe Asp Asn		
210	215	220
Glu Arg Arg Thr Val Ser Arg Arg Lys Gly Ser Val Asp Gln Tyr Leu		
225	230	235
Leu Arg Ser Ser Asn Met Ala Gly Gly Arg		240
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<210> 3925

<211> 3296

<212> DNA

<213> Homo sapiens

<400> 3925

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720
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<210> 3926

<211> 683

<212> PRT

<213> Homo sapiens

<400> 3926

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Ile Phe Leu His Pro Glu Pro Phe Ser Ile Glu Asn Gly Leu Leu Thr		
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<211> 3197

<212> DNA

<213> Homo sapiens

<400> 3927

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<211> 180

<212> PRT

<213> Homo sapiens

<400> 3928

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Asp	Ser	Ser	Ser	Arg	Arg	Arg	Arg	Ser	Cys	Cys	Thr	Gly	Ser	Leu	Gly
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Leu	Lys	Ser	Gln	Leu	Pro	Arg	Phe	Phe	Trp	Arg	Arg	Gln	Gln	Glu	
			85					90					95		
Pro	Leu	Ser	Ser	Phe	Pro	Gly	Arg	Asn	Glu	Gly	Gly	Ser	Glu	Met	Glu
			100				105						110		
Ile	Leu	Gly	Val	Cys	Pro	Val	Ser	Pro	Gly	Ala	Leu	Ser	Tyr	Met	Glu
	115					120						125			
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Cys	Pro	Asn	Pro	Arg	Ser	Ser	Glu	Ala	Phe	Pro	Gly	Ala	Val	Cys	Val
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<210> 3929

<211> 470

<212> DNA

<213> Homo sapiens

<400> 3929

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<211> 115

<212> PRT

<213> Homo sapiens

<400> 3930

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Gln	Ser	Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu
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Asn	Thr	Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg
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Arg	Arg	Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Val	Gln	Gln	Glu	
65				70					75					80	
Leu	Gly	Ser	Cys	Arg	Cys	Gly	Tyr	Val	Phe	Cys	Met	Leu	His	Arg	Leu
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Pro	Glu	Gln	His	Asp	Cys	Thr	Phe	Asp	His	Met	Gly	Val	Ala	Gly	Arg
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<210> 3931

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 3931

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 Ser Gly Ser Ala Ile Met Ala Pro Ala Pro Phe Arg Ser Gln Ser Thr
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 Arg Ser Ser Ile Glu Asp Asp Phe Asn Tyr Gly Ser Ser Val Ala Ser
 65 70 75 80
 Ala Thr Val His Ile Arg Met Ala Phe Leu Arg Lys Val Tyr Ser Ile
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<210> 3933
 <211> 4082

<212> DNA

<213> Homo sapiens

<400> 3933

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<211> 130

<212> PRT

<213> Homo sapiens

<400> 3934

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Ala	Ala	Gly	Thr	Ser	Ser	Pro	Ile	Arg	Pro	Val	Ser	Ser	Pro	Val	Leu
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Ser	Ser	Ser	Asn	Lys	Ser	Pro	Ser	Ser	Ala	Trp	Ser	Ser	Ser	Ser	Trp
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His	Gly	Arg	Ile	Lys	Gly	Gly	Met	Lys	Gly	Phe	Gln	Ser	Phe	Met	Val
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Cys	Ser	Ala	Leu	Gln	Pro	Xaa	Leu	Ala	Pro	Ser	Gln	Pro	His	Ser	Thr
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<210> 3935
 <211> 1103
 <212> DNA
 <213> Homo sapiens

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<213> Homo sapiens

<400> 3936

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Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val Gln Arg Val
      35           40           45
Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr
      50           55           60
Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala
      65           70           75           80
Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
      85           90           95
Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
      100          105          110
Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
      115          120          125
Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
      130          135          140
Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
145          150          155          160
Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
      165          170          175
Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
      180          185          190
Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
      195          200          205
Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
      210          215          220
Gly Gly Gly Asp Ser Leu Ser Arg Glu Gly Gly Trp Gly Gly Arg Ile
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<210> 3937

<211> 744

<212> DNA

<213> Homo sapiens

<400> 3937

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<210> 3938

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3938

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 35 40 45
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 Lys Glu Gln Gly Gly Gly Gly Gln Asp Pro Ala Ala Ile Ala Gly His
 65 70 75 80
 Ser Ala Gly Gly Ser Asp His Ala Gly Glu Arg Gly Leu Xaa Gly Arg
 85 90 95
 Thr Gly Trp Leu Ala Ala Lys Ala Ala Pro Ala Gly Gly His Arg Glu
 100 105 110
 Thr Gly Leu Ala Ser Val Gly Ala Gly Pro Trp Leu Gly Arg Arg Asn
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<210> 3939

<211> 490

<212> DNA

<213> Homo sapiens

<400> 3939

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 <212> PRT
 <213> Homo sapiens

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<210> 3941
 <211> 2077
 <212> DNA
 <213> Homo sapiens

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<211> 89
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala
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<210> 3943
 <211> 1524
 <212> DNA
 <213> Homo sapiens

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 ggagcaggaa cccctatga caaggaatcc acagccatca taaagcttaa taatacaacc
 1080
 gtgcttttatt taaaagaggt gacaaagttc ctggctctcg tttgctttgt cagagaggaa
 1140
 agctttgaaa gaaaagggt aattgactat aattttcatt gcttccggaa ggccattcat
 1200
 gaagtttttg aggtgagaat gaaagtagta aaatctcgaa aggttcagaa tcggctgcag
 1260
 aagaaaaaga gagccacccc taatgggacc cctagagtgc tgctgtaggt gaggtttcag
 1320
 gaatgtcttt tgaatcaga cttatccat gaggetgctg cgccatgttg cactaaagga
 1380
 agaggaagaa ggagattggg acacatacca ttgatttgtt gttaaaaaaaa aaaaattcct
 1440
 gcaaccctct tgatcttctc tttataaat aaagtaagca ctttgaagca aaaaaaaaaa
 1500
 aaaaaaaaaa aaaaaaaaaa aaaa
 1524

<210> 3944
 <211> 435
 <212> PRT
 <213> Homo sapiens

<400> 3944
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 Arg Leu Gly Pro Thr Pro Gly Pro Pro Pro Ser Pro Gly Arg Pro Ala
 20 25 30
 Val Gly Thr Met Ser Gln Val Leu Gly Lys Pro Gln Pro Gln Asp Glu
 35 40 45
 Asp Asp Ala Glu Glu Glu Glu Glu Asp Glu Leu Val Gly Leu Ala
 50 55 60
 Asp Tyr Gly Asp Gly Pro Asp Ser Ser Asp Ala Asp Pro Asp Ser Gly
 65 70 75 80
 Thr Glu Glu Gly Val Leu Asp Phe Ser Asp Pro Phe Ser Thr Glu Val
 85 90 95
 Lys Pro Arg Ile Leu Leu Met Gly Leu Arg Arg Ser Gly Lys Ser Ser
 100 105 110
 Ile Gln Lys Val Val Phe His Lys Met Ser Pro Asn Glu Thr Leu Phe
 115 120 125
 Leu Glu Ser Thr Asn Lys Ile Cys Arg Glu Asp Val Ser Asn Ser Ser
 130 135 140
 Phe Val Asn Phe Gln Ile Trp Asp Phe Pro Gly Gln Ile Asp Phe Phe
 145 150 155 160
 Asp Pro Thr Phe Asp Tyr Glu Met Ile Phe Arg Gly Thr Gly Ala Leu
 165 170 175
 Ile Phe Val Ile Asp Ala Gln Asp Asp Tyr Met Glu Ala Leu Thr Arg
 180 185 190
 Leu His Ile Thr Val Ser Lys Ala Tyr Lys Val Asn Pro Asp Met Asn

195	200	205
Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys		
210	215	220
Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala		
225	230	235
Asp Ala Gly Leu Glu Lys Ile His Leu Ser Phe Tyr Leu Thr Ser Ile		
245	250	255
Tyr Asp His Ser Ile Phe Glu Ala Phe Ser Lys Val Val Gln Lys Leu		
260	265	270
Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser		
275	280	285
Asn Ser Gly Ile Glu Lys Ala Phe Leu Phe Asp Val Val Ser Lys Ile		
290	295	300
Tyr Ile Ala Thr Asp Ser Thr Pro Val Asp Met Gln Thr Tyr Glu Leu		
305	310	315
Cys Cys Asp Met Ile Asp Val Val Ile Asp Ile Ser Cys Ile Tyr Gly		
325	330	335
Leu Lys Glu Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala		
340	345	350
Ile Ile Lys Leu Asn Asn Thr Thr Val Leu Tyr Leu Lys Glu Val Thr		
355	360	365
Lys Phe Leu Ala Leu Val Cys Phe Val Arg Glu Glu Ser Phe Glu Arg		
370	375	380
Lys Gly Leu Ile Asp Tyr Asn Phe His Cys Phe Arg Lys Ala Ile His		
385	390	395
Glu Val Phe Glu Val Arg Met Lys Val Val Lys Ser Arg Lys Val Gln		
405	410	415
Asn Arg Leu Gln Lys Lys Lys Arg Ala Thr Pro Asn Gly Thr Pro Arg		
420	425	430
Val Leu Leu		
435		

<210> 3945
 <211> 696
 <212> DNA
 <213> Homo sapiens

<400> 3945
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 120
 cgggcgcgcc cagcagtagc accgcccgcg cccgcccctg gacacttgta agtttcgatt
 180
 tccgatttcc gcggaaccga gtcccgcgcc gcggcagagc cagcacagcc agcgcgccat
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 300
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 420
 ccgacgggtg gtggccacca ctcgagcccg ggtctgccgt cgcaagtact gccagagacc
 480

ctgcgataac ctgcatctct gcaaactcaa cttgctgggc cgggtgcaact attcgagtc
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 600
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<210> 3946

<211> 165

<212> PRT

<213> Homo sapiens

<400> 3946

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Gly	Ser	Ser	Gly	Gly	His	His	Arg	Ser	Gly	Asp	Pro	Gly	Leu	Ala	Ala
			20					25					30		
Gly	Leu	Gln	His	His	Lys	Ala	Val	Gly	Pro	Gly	His	Leu	Gln	His	Leu
			35				40					45			
Thr	Glu	Leu	Arg	Leu	Arg	Gln	Arg	Asp	Leu	Leu	Glu	Gln	Arg	Val	Gln
	50					55					60				
Gly	His	Ala	Ala	Pro	Val	Gly	Ala	Gln	Asp	Phe	Gly	Asp	Glu	Ala	Ala
65					70					75				80	
His	Leu	Arg	Val	Arg	His	Gly	Ala	Leu	Ala	Val	Leu	Ala	Leu	Pro	Arg
				85					90					95	
Arg	Gly	Thr	Arg	Phe	Arg	Gly	Asn	Arg	Lys	Ser	Lys	Leu	Thr	Ser	Val
			100					105					110		
Gln	Gly	Arg	Ala	Arg	Ala	Val	Leu	Leu	Leu	Gly	Ala	Pro	Gly	Val	Ser
		115					120					125			
Glu	Gly	Ala	Leu	Ser	Val	Ala	Val	Ser	Pro	Ala	Gln	Arg	Ser	Thr	Leu
	130					135					140				
Gly	Ser	Gln	Val	Lys	Arg	Leu	Asp	Leu	Thr	Asp	Arg	Val	Leu	Val	Ala
145				150						155				160	
Gly	Leu	Gln	Pro	Ala											
				165											

<210> 3947

<211> 400

<212> DNA

<213> Homo sapiens

<400> 3947

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 120
 ctgcagggca tcacgacga cttggtggtg ctgacagcag aacccacaa actgcctccc
 180
 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctggtc ctaccagacc
 240
 ccacctcat caccagcag ctccagctcc cggaagtcca gcatgtgcag tgccccagc
 300

agcagtagca gtgccaaggg tggcggaagc cccatggcct gggggtgccc aaacatactc
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 400

<210> 3948
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 3948
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 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu
 35 40 45
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln
 50 55 60
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr
 65 70 75 80
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Arg Lys Ser Ser Met Cys
 85 90 95
 Ser Ala Pro Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met
 100 105 110
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro
 115 120 125
 Gln Pro Gly Ala Ala
 130

<210> 3949
 <211> 1462
 <212> DNA
 <213> Homo sapiens

<400> 3949
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 120
 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca ccactgctga
 180
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt
 240
 tgtgtcagct ctgtccaaat ctctaactga cttgtgaact aaaaagaaag gtttctacca
 300
 tcagcagact gtcaccata gacatttaca cagtattttg gtttggagtt cttcctaata
 360
 gtcacttcac agaaaaatat atagggtgctg ttttgccctg gaagccagac agatcagaat
 420
 attgggtaag atagctgggt cagctgtcct tggatggatc ccaaacta tgctccttc
 480
 caggcctgag aatcgccgaa cactgtccaa cacaatgtga tcaccaaca tatcacatgc
 540

atcactgagc tgcaccaccc ttttcttcct cattgcttcc aagagctcat acttatagt
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 660
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 720
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 780
 gcacccagtg gggatattaa ttggaggatt ttctataatt agttgcattt ctttttgtaa
 840
 gtactcggct atttcatctg cattgcgaac tattctggtg agctcttctc ttggatattg
 900
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 960
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 1020
 ccagtcacca tcttcagtac ggaaattctg agcttcgtca atgacgatgt gttgaatgtg
 1080
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 1200
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 1260
 taagccgtgg acaaacactc ctctgttctt gcggaggctt ctggagaata tctcatactg
 1320
 ctgggctgtg agcagattta aaacctcaca gccgagctgg tcaactcaaga gagacctgaa
 1380
 gccgagtaag acaatcacga gggactgcag cagggtcttc atgtgctggg tgccctgcaag
 1440
 gctataggac gcagggtaat cc
 1462

<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

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Ser	Leu	Leu	Ser	Asp	Gln	Leu	Gly	Cys	Glu	Val	Leu	Asn	Leu	Leu	Thr
		20					25					30			
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
		35					40					45			
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
	50					55					60				
Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65					70				75					80	
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
			85					90					95		
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
		100						105					110		
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

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      115      120      125
Thr Glu Asp Gly Asp Trp Tyr Gly Lys Ala Lys Ser Ile Thr Gln Arg
      130      135      140
Glu Lys Asp Cys Pro Gly Val Leu Trp Ile Phe Leu Asp Tyr Phe Gln
145      150      155      160
Thr Ser His Leu Gly His Ser Gly Leu Pro Pro Leu Ser Asp Gln Tyr
      165      170      175
Pro Arg Glu Glu Leu Thr Arg Ile Val Arg Asn Ala Asp Glu Ile Ala
      180      185      190
Glu Tyr Leu Gln Lys Glu Met Gln Leu Ile Ile Glu Asn Pro Pro Ile
      195      200      205
Asn Ile Pro Thr Gly Cys Leu Glu Val Phe Pro Glu Ala Glu Trp Ser
      210      215      220
Gln Gly Val Gln Gly Thr Leu Arg Ile Lys Lys Tyr Leu Thr Val Glu
225      230      235      240
Gln Ile Met Thr Cys Val Ala Asp Thr Cys Arg Arg Phe Phe Asp Arg
      245      250      255
Gly Tyr Ser Pro Lys Asp Val Ala Val Leu Val Ser Thr Ala Lys Glu
      260      265      270
Val Glu His Tyr Lys Tyr Glu Leu Leu Lys Ala Met Arg Lys Lys Arg
      275      280      285
Val Val Gln Leu Ser Asp Ala Cys Asp Met Leu Gly Asp His Ile Val
      290      295      300
Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe
305      310      315      320
Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu
      325      330      335
Ile Cys Leu Ala Ser Arg Ala Lys Gln His Leu Tyr Ile Phe Leu
      340      345      350

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<210> 3951
 <211> 1012
 <212> DNA
 <213> Homo sapiens

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 120
 gtccaggagt tccaggttcc ggattatgtt ccatggcagc agtccaagca ggaaaccaag
 180
 ccatctactc tgcctccagt ccaacaagcc aacagccttc atacaagcaa aatgaagact
 240
 ttgactaggg tccaaccagt gtttcacttc aagccacta cgggtgtgac aagctgccag
 300
 ccgaagaatc caagagaact acatagaagg cggaagttag accctgggaa gatgcatgcc
 360
 aaaaatctggt taatgaagac ctgcgtcagg agcgggaggg ccgctctgcg agagctccga
 420
 agccgtgaga acttctcag caagctcaac cgggagctga tcgagaccat ccaggagatg
 480
 gagaacagca cgaccctgca cgtgcgggcc ctgctgcagc agcaggacac cctggcgacc
 540

atcatcgaca tcttgagta ctcaaacaag aagaggctgc agcaattgaa atctgagctt
 600
 caggagtggg aagaaaagaa gaaatgcaag atgagctatc ttgagcagca ggcagagcag
 660
 ctgaatgcc aagattgagaa gacccaggag gaagtgaact tcttgagcac ttacatggac
 720
 catgagtatt ccatcaagtc tgtccagatc tccactctta tgcgccactg cagcaggtta
 780
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 840
 gactgggtggc caacaccgtt ctgctggctc ccaggatgag ctggatgacc tcggtgagat
 900
 gcgcagaaaag gtctctgggaa tccttggtccg acaagattca gaagaagaag aaaaaaattc
 960
 tgagttctgt ggtggcggtg agtagccagt tgctgtgtgg gagcggggat cc
 1012

<210> 3952

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3952

Met	Lys	Thr	Leu	Thr	Arg	Val	Gln	Pro	Val	Phe	His	Phe	Lys	Pro	Thr
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Thr	Val	Val	Thr	Ser	Cys	Gln	Pro	Lys	Asn	Pro	Arg	Glu	Leu	His	Arg
			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35					40					45			
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
	50					55					60				
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65					70					75				80	
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
			85						90					95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
			100					105					110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
	130					135					140				
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155				160	
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
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Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
			180					185							

<210> 3953

<211> 2900

<212> DNA

<213> Homo sapiens

<400> 3953

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 120
 gacaagctca ggtgcttggt ttaaggaaag gggctactag agtcttacca acagcgagcc
 180
 cagggtgggag atgaaacagg tactcccaa aatagggtcat ccgagggagg aaaactgatg
 240
 gagagcacia tgtgctctga gcgtttttaa tgtttttaag cttttaaatg atttcttcaa
 300
 ggccgagcag cagcagcaaa ggtgtggctt aaaggattaa ggggggttct gctggcacct
 360
 agaatgaagt tactctatta ctaatcaagc cgagaggagg cccactatgc ccccgtttat
 420
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 540
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 600
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 780
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 1620

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2460
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2520
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2760
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<210> 3954

<211> 627

<212> PRT

<213> Homo sapiens

<400> 3954

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Val Cys Val Pro Leu Leu Leu Pro Leu Pro Val Leu His Pro Ser

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		35					40					45							
Val	Ser	Glu	Ala	Val	Pro	Leu	Gly	Ala	Ala	Ala	Leu	Val	Pro	Ala	Phe				
	50					55					60								
Leu	Tyr	Pro	Phe	Phe	Gly	Val	Leu	Arg	Ser	Asn	Glu	Val	Ala	Ala	Glu				
65					70					75					80				
Tyr	Phe	Lys	Asn	Thr	Thr	Leu	Leu	Leu	Val	Gly	Val	Ile	Cys	Val	Ala				
				85					90					95					
Ala	Ala	Val	Glu	Lys	Trp	Asn	Leu	His	Lys	Arg	Ile	Ala	Leu	Arg	Met				
			100					105					110						
Val	Leu	Met	Ala	Gly	Ala	Lys	Pro	Gly	Met	Leu	Leu	Leu	Cys	Phe	Met				
		115					120					125							
Cys	Cys	Thr	Thr	Leu	Leu	Ser	Met	Trp	Leu	Ser	Asn	Thr	Ser	Thr	Thr				
	130					135					140								
Ala	Met	Val	Met	Pro	Ile	Val	Glu	Ala	Val	Leu	Gln	Glu	Leu	Val	Ser				
145					150					155					160				
Ala	Glu	Asp	Glu	Gln	Leu	Val	Ala	Gly	Asn	Ser	Asn	Thr	Glu	Glu	Ala				
			165						170					175					
Glu	Pro	Ile	Ser	Leu	Asp	Val	Lys	Asn	Ser	Gln	Pro	Ser	Leu	Glu	Leu				
			180					185					190						
Ile	Phe	Val	Asn	Glu	Asp	Arg	Ser	Asn	Ala	Asp	Leu	Thr	Thr	Leu	Met				
		195					200					205							
His	Asn	Glu	Asn	Leu	Asn	Gly	Val	Pro	Ser	Ile	Thr	Asn	Pro	Ile	Lys				
	210					215					220								
Thr	Ala	Asn	Gln	His	Gln	Gly	Lys	Lys	Gln	His	Pro	Ser	Gln	Glu	Lys				
225					230					235					240				
Pro	Gln	Val	Leu	Thr	Pro	Ser	Pro	Arg	Lys	Gln	Lys	Leu	Asn	Arg	Lys				
				245					250					255					
Tyr	Arg	Ser	His	Asp	Gln	Met	Ile	Cys	Lys	Cys	Leu	Ser	Leu	Ser	Ser				
			260				265					270							
Ile	Ser	Tyr	Ser	Ala	Thr	Ile	Gly	Gly	Leu	Thr	Thr	Ile	Ile	Gly	Thr				
	275						280					285							
Ser	Thr	Ser	Leu	Ile	Phe	Leu	Glu	His	Phe	Asn	Asn	Gln	Tyr	Pro	Ala				
	290					295					300								
Ala	Glu	Val	Val	Asn	Phe	Gly	Thr	Trp	Phe	Leu	Phe	Ser	Phe	Pro	Ile				
305					310					315					320				
Ser	Leu	Ile	Met	Leu	Val	Val	Ser	Trp	Phe	Trp	Met	His	Trp	Leu	Phe				
				325					330					335					
Leu	Gly	Cys	Asn	Phe	Lys	Glu	Thr	Cys	Ser	Leu	Ser	Lys	Lys	Lys	Lys				
			340					345				350							
Thr	Lys	Arg	Glu	Gln	Leu	Ser	Glu	Lys	Arg	Ile	Gln	Glu	Glu	Tyr	Glu				
		355					360					365							
Lys	Leu	Gly	Asp	Ile	Ser	Tyr	Pro	Glu	Met	Val	Thr	Gly	Phe	Phe	Phe				
	370					375					380								

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      450              455              460
Trp Glu Ile Val Ile Leu Val Gly Gly Gly Tyr Ala Leu Ala Ser Gly
465              470              475              480
Ser Lys Ser Ser Gly Leu Ser Thr Trp Ile Gly Asn Gln Met Leu Ser
      485              490              495
Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala Cys Ile Leu
      500              505              510
Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr Ile Thr Ile
      515              520              525
Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro
      530              535              540
Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met
545              550              555              560
Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His
      565              570              575
Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile
      580              585              590
Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu
      595              600              605
Phe His Leu Asp Thr Tyr Pro Ala Trp Ala Arg Val Ser Asn Ile Thr
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Asp Gln Ala
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<210> 3955
<211> 522
<212> DNA
<213> Homo sapiens

<400> 3955
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300
atagctgact ataaagaaag cttcaacact atcagtaaca tcgaggagat tgcgtataac
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420
ttaagcacag atttctcttc ccagaaggga gtgaaggggt tgcctcttaa cattcaagtt
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522

<210> 3956
<211> 174
<212> PRT
<213> Homo sapiens

<400> 3956

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Xaa Asn Ser Glu Asp Tyr Val Phe Asp Ser Val Ser Gly Asn Asn Phe
 1           5           10           15
Glu Tyr Thr Leu Glu Ala Ser Lys Ser Leu Arg Gln Lys Pro Gly Asp
      20           25           30
Ser Thr Met Thr Tyr Leu Asn Lys Gly Gln Phe Tyr Pro Ile Thr Leu
      35           40           45
Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
      50           55           60
Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
      65           70           75           80
Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
      85           90           95
Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
      100          105          110
Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
      115          120          125
Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
      130          135          140
Phe Ser Ser Gln Lys Gly Val Lys Gly Leu Pro Leu Asn Ile Gln Val
      145          150          155          160
Asp Thr Tyr Ser Tyr Asn Asn Arg Ser Asn Lys Pro Val His
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<210> 3957

<211> 3891

<212> DNA

<213> Homo sapiens

<400> 3957

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240
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720

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<211> 440

<212> PRT

<213> Homo sapiens

<400> 3958

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 Thr Glu Pro Ala Gln Ala Gln Lys Cys Tyr Arg Asp Leu Ala Leu Val
 35 40 45
 Ser Arg Asp Gly Met Asn Ile Val Leu Asn Lys Ile Asn Gln Ile Leu
 50 55 60
 Met Glu Lys Tyr Leu Lys Leu Gln Asp Thr Cys Arg Thr Gln Leu Val
 65 70 75 80
 Trp Leu Val Arg Glu Leu Val Lys Ser Gly Val Leu Gly Ala Asp Gly
 85 90 95
 Val Cys Met Thr Phe Met Lys Gln Ile Ala Gly Gly Asp Val Thr Ala
 100 105 110
 Lys Asn Ile Trp Leu Ala Glu Ser Val Leu Asp Ile Leu Thr Glu Gln
 115 120 125
 Arg Glu Trp Val Leu Lys Ser Ile Leu Ile Ala Met Ala Val Tyr
 130 135 140
 Thr Tyr Leu Arg Leu Ile Val Asp His His Gly Thr Ala Gln Leu Gln
 145 150 155 160
 Ala Leu Arg Gln Lys Glu Val Asp Phe Cys Ile Ser Leu Leu Arg Glu
 165 170 175
 Arg Phe Met Glu Cys Leu Met Ile Gly Arg Asp Leu Val Arg Leu Leu
 180 185 190
 Gln Asn Val Ala Arg Ile Pro Glu Phe Glu Leu Leu Trp Lys Asp Ile
 195 200 205
 Ile His Asn Pro Gln Ala Leu Ser Pro Gln Phe Thr Gly Ile Leu Gln
 210 215 220
 Leu Leu Gln Ser Arg Thr Ser Arg Lys Phe Leu Ala Cys Arg Leu Thr
 225 230 235 240
 Pro Asp Met Glu Thr Lys Leu Leu Phe Met Thr Ser Arg Val Arg Phe
 245 250 255
 Gly Gln Gln Lys Arg Tyr Gln Asp Trp Phe Gln Arg Gln Tyr Leu Ser
 260 265 270
 Thr Pro Asp Ser Gln Ser Leu Arg Cys Asp Leu Ile Arg Tyr Ile Cys
 275 280 285
 Gly Val Val His Pro Ser Asn Glu Val Leu Ser Ser Asp Ile Leu Pro
 290 295 300
 Arg Trp Ala Ile Ile Gly Trp Leu Leu Thr Thr Cys Thr Ser Asn Val
 305 310 315 320
 Ala Ala Ser Asn Ala Lys Leu Ala Leu Phe Tyr Asp Trp Leu Phe Phe
 325 330 335
 Ser Pro Asp Lys Asp Ser Ile Met Asn Ile Glu Pro Ala Ile Leu Val
 340 345 350
 Met His His Ser Met Lys Pro His Pro Ala Ile Thr Ala Thr Leu Leu
 355 360 365
 Asp Phe Met Cys Arg Ile Ile Pro Asn Phe Tyr Pro Pro Leu Glu Gly
 370 375 380
 His Val Arg Gln Gly Val Phe Ser Ser Leu Asn His Ile Val Glu Lys

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385          390          395          400
Arg Val Leu Ala Cys Lys Lys Tyr Trp Leu Tyr Leu Arg Leu Leu Gly
          405          410          415
Ile Cys Leu Leu Xaa Leu Leu Glu Glu Phe Leu Ser Cys His Arg Ile
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Thr Lys Thr Pro Ser Ser Pro Val
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<210> 3959
 <211> 752
 <212> DNA
 <213> Homo sapiens

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<400> 3959
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120
agaaaatgtc ttctcccata tacagagacc ctcataccat ttggggacat tgcccaaaaa
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<210> 3960
 <211> 94
 <212> PRT
 <213> Homo sapiens

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<400> 3960
Pro Leu Gly Arg Pro Gly Ala His Arg Ala Phe Ile Trp Leu Tyr Lys
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Gly Pro Asn Ser Pro Leu Asp Phe Leu Phe Ser Phe Gln Asn Ala Val
20          25          30
Ser Lys Tyr Gly Ser Gln Phe Gln Gly Asn Ser Gln His Asp Ala Leu
35          40          45
Glu Phe Leu Leu Trp Leu Leu Asp Arg Val His Glu Asp Leu Glu Gly

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50	55	60
Ser Ser Arg Trp Ala Arg Cys Arg Arg Ser Phe Arg Leu Lys Pro Leu		
65	70	75
Lys Pro Leu Arg Thr Ala Cys His His Gln Leu Ser Phe Leu		80
	85	90

<210> 3961
 <211> 2505
 <212> DNA
 <213> Homo sapiens

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<210> 3962

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3962

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			20				25					30			
Thr	Val	Met	Tyr	Ile	Cys	His	Pro	Glu	Ser	Lys	His	Glu	Ile	Leu	Ser

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  50      55      60
Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn
  65      70      75      80
Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr
      85      90      95
Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg
      100      105      110
Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro
      115      120      125
Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val
      130      135      140
Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu
      145      150      155      160
Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys
      165      170      175
Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys
      180      185      190
Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu
      195      200      205
His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln
      210      215      220
Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn
      225      230      235      240
Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys
      245      250      255
Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met
      260      265      270
Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val
      275      280      285
Ile Cys Lys Ile Leu Asp Thr Ala Asp Glu Asn Gly Leu Leu Ser Leu
      290      295      300
Pro Asn
305

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<210> 3963

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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120
ataaatccat ttgttaaaca gttttcaaac atcagttttt cgagagactc accagaggaa
180
aatgtacaaa gcaataagat ggacctttct ggaggaatgt tacaagacaa acgaatggag
240
atagataaac atagcctaaa tattggtgat tacaatcgaa cggtcgggaa aggccttggt
300
tctcggcctc agatttccaa agagtcttcc atggagcgca atccttattt tgataagaat
360

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 420
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 480
 ttactctccc ctcaggttcc agtttcattg ctgaagtatg caccaaaca cggtgggcctg
 540
 aatccactct ttggccctca acaggtagcc atgctgaacc agctatccca gctaaaccag
 600
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<210> 3964

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

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Lys	Gly	Gly	Asn	Lys	Gln	Glu	Glu	Ala	Trp	Ile	Asn	Pro	Phe	Val	Lys
			20					25					30		
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
		35				40					45				
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg

50	55	60
Met Glu Ile Asp Lys His Ser Leu Asn Ile Gly Asp Tyr Asn Arg Thr		
65	70	75
Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser		80
	85	90
Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe		95
	100	105
Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro		110
	115	120
Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro		125
	130	135
Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala		140
145	150	155
Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala		160
	165	170
Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln		175
	180	185
Leu Gln Arg Leu Leu Ala Gln Gln Gln Arg Ala Gln Ser Gln Arg Ser		190
	195	200
Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu		205
210	215	220
Ser Val Gln Gln Gln Met Gln Gln Ser Arg Gln Leu Asp Pro Asn		
225	230	235
Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Gln Pro Leu His		240
	245	250
Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr		255
	260	265
Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe		270
	275	280
Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser		285
	290	295
Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser		300
305	310	315
Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala		320
	325	330
Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp		335
	340	345
Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly		350
	355	360
Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn		365
	370	375
Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn		380
385	390	395
Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn		400
	405	410
Asn Leu Pro Ile Asn Thr Val Arg Glu Val Asp His Leu Arg Asp Arg		415
	420	425
Asn Ser Gly Thr		430
435		

<210> 3965

<211> 2850

<212> DNA

<213> Homo sapiens

<400> 3965
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gccaggcaga aagggtttcc catggggccg cccctggcgc cgcgcccggc ccacgtaccc
240
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300
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360
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420
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480
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540
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1560

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 2160
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 2220
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 2280
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 2460
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 2520
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 2700
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 2820
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 2850

<210> 3966

<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

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 Gly Pro Arg Arg Thr Arg Glu Ser Arg Pro Gly Ala Val Ser Phe Ala

[illegible]

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Gly Pro Tyr Ile Phe Leu Glu Gly Lys Lys Pro Leu Leu Tyr Phe Pro
465      470      475      480
Asp Thr Pro Pro Pro Pro Leu Glu Lys Ala Ala Glu Ala Ala Leu Phe
      485      490      495
Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Pro Ala
500      505      510
Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys
515      520      525
Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu
530      535      540
Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val
545      550      555      560
Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro
565      570      575
Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser
580      585      590
Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg
595      600      605
Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro
610      615      620
Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val
625      630      635      640
Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg
645      650      655
Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln
660      665      670
Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg
675      680      685
His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu
690      695      700
Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro
705      710      715      720
Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln
725      730      735
Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Pro Gly
740      745      750
Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro
755      760      765
Val Leu Phe Arg His Tyr Pro Asp Ile Phe Glu Glu Cys Gly
770      775      780

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<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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120
tactggatcc gaggcgggac ctcaaggac atcatcaaga ctggaggcta caaggtcagc
180

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gccctggagg tggagtggca cctgctggcc caccacagca tcacagatgt ggctgtgatt
 240
 ggagttcccg atatgacatg gggccagcgg gtcactgctg tggtagacct ccgagaagga
 300
 cactcactgt cccacagga gctcaaagag tgggccagaa atgtcctggc cccgtacgcg
 360
 gtgccctcgg agctgggtgt ggtggaggag atcccgcgga accagatggg caagattgac
 420
 aagaaggcgc tcatacaggca ctccacccc tcatgacctg gcagactggg actgcgggtc
 480
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 540
 ggcctccctt aaacctgaac ccccaaatc aggtcacgta gaatcaagaa ctgtttggga
 600
 tgaaatcacc atgtggggtc cccagcctcg ggccagttgt tgcagctcaa ggagaccgtc
 660
 cctgggtgtca cctctgctg gtcaccgccc acctcatctg tgcagcgccg tgcagccagc
 720
 ccctggcccc acgtgctgag gcacctcccg cccacagtg cctgcagtt gccaggtctc
 780
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 892

<210> 3968
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 3968
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 20 25 30
 Thr Val Val Phe Lys Asp Gly Gln Tyr Trp Ile Arg Gly Arg Thr Ser
 35 40 45
 Val Asp Ile Ile Lys Thr Gly Gly Tyr Lys Val Ser Ala Leu Glu Val
 50 55 60
 Glu Trp His Leu Leu Ala His Pro Ser Ile Thr Asp Val Ala Val Ile
 65 70 75 80
 Gly Val Pro Asp Met Thr Trp Gly Gln Arg Val Thr Ala Val Val Thr
 85 90 95
 Leu Arg Glu Gly His Ser Leu Ser His Arg Glu Leu Lys Glu Trp Ala
 100 105 110
 Arg Asn Val Leu Ala Pro Tyr Ala Val Pro Ser Glu Leu Val Leu Val
 115 120 125
 Glu Glu Ile Pro Arg Asn Gln Met Gly Lys Ile Asp Lys Lys Ala Leu
 130 135 140
 Ile Arg His Phe His Pro Ser
 145 150

<210> 3969
 <211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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120

ggattgcaac tcggggaggg atggagcacg cgtcgtcgcc tgggaaacgg gtcgaccgcg
180

ggaaggcgag cgggtgggac ttccggagca gttaattgtg gggaaacttt ctagtggatg
240

tgggaggagg cgggacttcc tgcagcaa at tggggctgtg cggcgtcaa gcccgtttac
300

ctgtctccca gccgggcacc caggatgggc gaggtggagg ccccgggccg cttgtggctc
360

gagagccccc ctgggggagc gccccccatc ttctgcct cggacgggca agccctggtc
420

gtgggcaggg gaccctgac ccaggttacg gaccggaagt gtcccagaac tcaagtggag
480

ctggtcgcag atcctgagac ccggacagtg gcagtgaac aggtatcagt gcctctgcaa
540

gggccagcaa ggcctgggga tgggatttgg ggaggaattg caagccgtca gtgaaggggt
600

acattaggaa aatctgattg gggccgggcy tggtggtca agcctgtaat cccagcatt
660

tgggaggccg aggcgggcyg atcgcttgaa cccaggagt cagagaccagc ctgagcgaca
720

tgggtgaaacc tgtctctcta aaaaattagc gggaaatgtg gcgcgtcctt gtagttccta
780

atcgggaggc tgaagcggga ggatcccttg agcccagtag gtcaagggtg tagtgagcag
840

tgatcaccac actgtacttc agcctgggtg acagagcgag aacctgtctc aaaaaagaa
900

aagaaaaaat atggc

915

<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

Met Gly Glu Val Glu Ala Pro Gly Arg Leu Trp Leu Glu Ser Pro Pro
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Gly Gly Ala Pro Pro Ile Phe Leu Pro Ser Asp Gly Gln Ala Leu Val
20 25 30

Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35 40 45

Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50 55 60

Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65 70 75 80

Ile Trp Gly Gly Ile Ala Ser Arg Gln

85

<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

<400> 3971
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 120
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 180
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 240
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 300
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 420
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 433

<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
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 20 25 30
 Trp Pro Cys Ser Ser Ser Thr Gln Ala His Pro Gly Pro Leu His Leu
 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
 85 90 95
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
 100 105 110
 Pro Leu Glu His His Gln Ser Arg
 115 120

<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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 120
 tgctccacct acttgtagtc cagatattac agggcccctg agatcatcct tggtttacca
 180
 ttttgtgagg caattgacat gtggtccctg ggctgtgtta ttgcagaatt gttcctgggt
 240
 tggccgttat atccaggagc ttgaggatgat gatcagattc ggtatatttc acaaacacag
 300
 gggtttgcctg ctgaatattt attaagcgcc gggacaaaaga caactagggt tttcaaccgt
 360
 gacacggact caccatatcc tttgtggaga ctgaagacac cagatgacca tgaagcagag
 420
 acagggatta agtcaaaaaga agcaagaaag tacattttca actgttttaga tgatatggcc
 480
 caggtgaaca tgacgacaga tttggaaggg agcgacatgt tggtagaaaa ggctgaccgg
 540
 cgggagttca ttgacctgtt gaagaagatg ctgaccattg atgctgacaa gagaatcact
 600
 ccaatcgaaa ccttgaacca tccctttgtc accatgacac acttactcga ttttccccac
 660
 agcacacacg tcaaatcatg tttccagaac atggagatct gcaagcgtcg ggtgaatatg
 720
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 780
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 840
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 960
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 984

<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

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 35 40 45
 Tyr Tyr Arg Ala Pro Glu Ile Ile Leu Gly Leu Pro Phe Cys Glu Ala
 50 55 60
 Ile Asp Met Trp Ser Leu Gly Cys Val Ile Ala Glu Leu Phe Leu Gly
 65 70 75 80
 Trp Pro Leu Tyr Pro Gly Ala Ser Glu Tyr Asp Gln Ile Arg Tyr Ile
 85 90 95
 Ser Gln Thr Gln Gly Leu Pro Ala Glu Tyr Leu Leu Ser Ala Gly Thr

		100						105					110				
Lys	Thr	Thr	Arg	Phe	Phe	Asn	Arg	Asp	Thr	Asp	Ser	Pro	Tyr	Pro	Leu		
		115						120					125				
Trp	Arg	Leu	Lys	Thr	Pro	Asp	Asp	His	Glu	Ala	Glu	Thr	Gly	Ile	Lys		
	130						135					140					
Ser	Lys	Glu	Ala	Arg	Lys	Tyr	Ile	Phe	Asn	Cys	Leu	Asp	Asp	Met	Ala		
145					150						155					160	
Gln	Val	Asn	Met	Thr	Thr	Asp	Leu	Glu	Gly	Ser	Asp	Met	Leu	Val	Glu		
				165						170					175		
Lys	Ala	Asp	Arg	Arg	Glu	Phe	Ile	Asp	Leu	Leu	Lys	Lys	Met	Leu	Thr		
		180						185					190				
Ile	Asp	Ala	Asp	Lys	Arg	Ile	Thr	Pro	Ile	Glu	Thr	Leu	Asn	His	Pro		
	195						200					205					
Phe	Val	Thr	Met	Thr	His	Leu	Leu	Asp	Phe	Pro	His	Ser	Thr	His	Val		
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Lys	Ser	Cys	Phe	Gln	Asn	Met	Glu	Ile	Cys	Lys	Arg	Arg	Val	Asn	Met		
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Tyr	Asp	Thr	Val	Asn	Gln	Ser	Lys	Thr	Pro	Phe	Ile	Thr	His	Val	Ala		
				245						250					255		
Pro	Ser	Thr	Ser	Thr	Asn	Leu	Thr	Met	Thr	Phe	Asn	Asn	Gln	Leu	Thr		
		260						265					270				
Thr	Val	His	Asn	Gln	Pro	Ser	Ala	Ser	Met	Ala	Ala	Ala	Ala	Gln			
		275						280					285				
Arg	Ser	Met	Pro	Leu	Gln	Thr	Gly	Thr	Ala	Gln	Ile	Cys	Ala	Arg	Pro		
	290						295					300					
Asp	Pro	Phe	Gln	Gln	Ala	Leu	Ile	Val	Cys	Pro	Pro	Gly	Leu	Gln	Ala		
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<211> 593
<212> DNA
<213> Homo sapiens
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<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

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Arg	Glu	Ser	Leu	Pro	Leu	His	Ser	Leu	Pro	Arg	Asp	Gly	Ser	Trp	Gly
			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40					45			
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
		50				55					60				
His	Pro	Thr	Ile	Leu	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro
65					70					75				80	
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
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Leu	Ala	Cys	Gln	Thr											
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<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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240
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<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

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			20				25					30			
Phe	Leu	His	Pro	Ser	Glu	Thr	Ser	Val	Leu	Asn	Arg	Leu	Cys	Arg	Leu
		35					40				45				
Gly	Thr	Asp	Tyr	Ile	Arg	Phe	Thr	Glu	Phe	Ile	Glu	Gln	Tyr	Thr	Gly
	50					55				60					
His	Val	Gln	Gln	Gln	Asp	His	His	Pro	Ser	Gln	Gln	Gly	Gln	Gly	Gly
65					70				75					80	
Leu	His	Gly	Ile	Tyr	Leu	Arg	Ala	Phe	Cys	Thr	Gly	Leu	Asp	Ser	Val
			85					90					95		
Leu	Gln	Pro	Tyr	Arg	Gln	Ala	Leu	Leu	Asp	Leu	Glu	Gln	Glu	Phe	Leu
			100				105					110			
Gly	Asp	Pro	His	Leu	Ser	Ile	Ser	His	Val	Asn	Tyr	Phe	Leu	Asp	Gln
	115					120					125				
Phe	Gln	Leu	Leu	Phe	Pro	Ser	Val	Met	Val	Val	Val	Glu	Gln	Ile	Lys
	130					135				140					
Ser	Gln	Lys	Ile	His	Gly	Cys	Gln	Ile	Leu	Glu	Thr	Val	Tyr	Lys	His
145					150				155					160	
Ser	Cys	Gly	Gly	Leu	Pro	Pro	Val	Arg	Ser	Ala	Leu	Glu	Lys	Ile	Leu
			165					170					175		
Ala	Val	Cys	His	Gly	Val	Met	Tyr	Lys	Gln	Leu	Ser	Ala	Trp	Met	Leu
			180				185						190		
His	Gly	Leu	Leu	Leu	Asp	Gln	His	Glu	Glu	Phe	Phe	Ile	Lys	Gln	Gly
	195					200						205			
Pro	Ser	Ser	Gly	Asn	Val	Ser	Ala	Gln	Pro	Glu	Glu	Asp	Glu	Glu	Asp
	210				215						220				
Leu	Gly	Ile	Gly	Gly	Leu	Thr	Gly	Lys	Gln	Leu	Arg	Glu	Leu	Gln	Asp
225				230					235					240	
Leu	Arg	Leu	Ile	Glu	Glu	Glu	Asn	Met	Leu	Ala	Pro	Ser	Leu	Lys	Gln
			245					250					255		
Phe	Ser	Leu	Arg	Val	Glu	Ile	Leu	Pro	Ser	Tyr	Ile	Pro	Val	Arg	Val
			260				265						270		
Ala	Glu	Lys	Ile	Leu	Phe	Val	Gly	Glu	Ser	Val	Gln	Met	Phe	Glu	Asn

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Asp Thr Phe Ala Ala Glu Leu His Arg Leu Lys Gln Gln Pro Leu Phe		
305	310	315
Ser Leu Val Asp Phe Glu Gln Val Val Asp Arg Ile Arg Ser Thr Val		
325	330	335
Ala Glu His Leu Trp Lys Leu Met Val Glu Glu Ser Asp Leu Leu Gly		
340	345	350
Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu		
355	360	365
Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro		
370	375	380
Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala		
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His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu		
405	410	415
Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa		
420	425	430
Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser		
435	440	445
Gly Trp Ala Ala Leu Gly Leu Ser Tyr Lys Val Gln Trp Pro Leu His		
450	455	460
Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys		
465	470	475
Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp		
485	490	495
Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala		
500	505	510
Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu		
515	520	525
Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu		
530	535	540
Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala		
545	550	555
His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu		
565	570	575
Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser		
580	585	590
Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly		
595	600	605
Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser		
610	615	620
Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser		
625	630	635
Asp Leu Ala Gln Leu Leu Leu Arg Leu Asp Tyr Asn Lys Tyr Tyr Thr		
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Gln Ala Gly Gly Thr Leu Gly Ser Phe Gly Met		
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<210> 3979

<211> 2746

<212> DNA

<213> Homo sapiens

<400> 3979

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<210> 3980

<211> 478

<212> PRT

<213> Homo sapiens

<400> 3980

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			20					25					30		
Val	Ile	Phe	Leu	Leu	Phe	Met	Asn	Leu	Tyr	Ile	Glu	Asp	Ser	Tyr	Val
			35				40					45			
Leu	Glu	Gly	Asp	Lys	Gln	Leu	Ile	Arg	Glu	Thr	Ser	Thr	His	Gln	Leu

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Gly Ala Ile Asn Val Thr Tyr Arg Tyr Leu Ala Ala Thr Pro Leu Gln		80
	85	90
Arg Lys Arg Tyr Leu Thr Ile Gly Leu Ser Ser Val Lys Arg Lys Lys		95
	100	105
Gly Asn Tyr Leu Leu Glu Thr Ile Lys Ser Ile Phe Glu Gln Ser Ser		110
	115	120
Tyr Glu Glu Leu Lys Glu Ile Ser Val Val Val His Leu Ala Asp Phe		125
	130	135
Asn Ser Ser Trp Arg Asp Ala Met Val Gln Asp Ile Thr Gln Lys Phe		140
	145	150
Ala His His Ile Ile Ala Gly Arg Leu Met Val Ile His Ala Pro Glu		155
	165	170
Glu Tyr Tyr Pro Ile Leu Asp Gly Leu Lys Arg Asn Tyr Asn Asp Pro		175
	180	185
Glu Asp Arg Val Lys Phe Arg Ser Lys Gln Asn Val Asp Tyr Ala Phe		190
	195	200
Leu Leu Asn Phe Cys Ala Asn Thr Ser Asp Tyr Tyr Val Met Leu Glu		205
	210	215
Asp Asp Val Arg Cys Ser Lys Asn Phe Leu Thr Ala Ile Lys Lys Val		220
	225	230
Ile Ala Ser Leu Glu Gly Thr Tyr Trp Val Thr Leu Glu Phe Ser Lys		235
	245	250
Leu Gly Tyr Ile Gly Lys Leu Tyr His Ser His Asp Leu Pro Arg Leu		255
	260	265
Ala His Phe Leu Leu Met Phe Tyr Gln Glu Met Pro Cys Asp Trp Leu		270
	275	280
Leu Thr His Phe Arg Gly Leu Leu Ala Gln Lys Asn Val Ile Arg Phe		285
	290	295
Lys Pro Ser Leu Phe Gln His Met Gly Tyr Tyr Ser Ser Tyr Lys Gly		300
	305	310
Thr Glu Asn Lys Leu Lys Asp Asp Asp Phe Glu Glu Glu Ser Phe Asp		315
	325	330
Ile Pro Asp Asn Pro Pro Ala Ser Leu Tyr Thr Asn Met Asn Val Phe		335
	340	345
Glu Asn Tyr Glu Ala Ser Lys Ala Tyr Ser Ser Val Asp Glu Tyr Phe		350
	355	360
Trp Gly Lys Pro Pro Ser Thr Gly Asp Val Phe Val Ile Val Phe Glu		365
	370	375
Asn Pro Ile Ile Ile Lys Lys Ile Lys Val Asn Thr Gly Thr Glu Asp		380
	385	390
Arg Gln Asn Asp Ile Leu His His Gly Ala Leu Asp Val Gly Glu Asn		395
	405	410
Val Met Pro Ser Lys Gln Arg Arg Gln Cys Ser Ser Tyr Leu Arg Leu		415
	420	425
Gly Glu Phe Lys Asn Gly Asn Phe Glu Met Ser Gly Val Asn Gln Lys		430
	435	440
Ile Pro Phe Asp Ile His Cys Met Arg Ile Tyr Val Thr Lys Thr Gln		445
	450	455
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<210> 3981
<211> 4447
<212> DNA
<213> Homo sapiens

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<211> 955

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<213> Homo sapiens

<400> 3990

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Arg	Ser	Ser	Ser	Asn	His	Ser	Arg	Val	Glu	Ser	Ser	Lys	Arg	Lys	Ser
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Glu	Leu	Ser	Pro	Arg	Glu	Arg	Ser	Pro	Ala	Leu	Lys	Ser	Pro	Leu	Gln
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Ser	Val	Val	Val	Arg	Arg	Arg	Ser	Pro	Arg	Pro	Ser	Pro	Val	Pro	Lys
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Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Pro Tyr Leu Gln Glu Arg
  65          70          75          80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85          90          95
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Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
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 Ser Leu Gln Glu Ala Gln Arg Gly Arg Ala Ala Ser His Ser Arg Ala
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<400> 3998

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Ala Ser Leu Leu Arg Glu Ala Val Ser Ser Gly Asp Glu Lys Glu Gly
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Tyr Leu Glu Ala Val Met Leu Asp Ser Thr Asp Val Asn Leu Trp Tyr
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His Ala Phe Glu Glu Gly Leu Arg Cys Asn Pro Asp His Trp Pro Cys
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Cys Leu Tyr Phe Ile Cys Lys Ala Leu Glu Lys Asp Cys Arg Tyr Ser
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Arg Lys Asp Ser Leu Arg Met Phe Leu Lys Cys Asp Met Ser Ile His
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Pro Asp Leu Lys Leu Val Gln Pro Ile Pro Phe Phe Thr Trp Lys Cys
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Pro Pro Arg Pro Ser Leu Gly Lys Arg Ile Asp Leu Ser Asp Tyr Gln
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Glu Ser Gly Glu Thr Ala Lys Arg Arg Ser Ala Arg Val Arg Asn Thr
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 Glu Gly His Pro Gly Lys Pro Glu Pro Ser Arg Ala Lys Ser Arg Pro
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Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
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Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
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Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
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Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
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Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys Leu Val Arg His Cys
370          375          380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
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Glu	Gly	Gln	Ser	Pro	Val	Lys	Ile	Trp	Glu	Thr	Leu	Asn	Ser	Glu	Gly
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Cys	Val	Ser	Ser	Ala	Pro	Arg	Thr	His	Pro	Tyr	Leu	Pro	Ser	Leu	Leu
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<210> 4002

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4002

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			20					25					30		
Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
		35					40					45			
Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro
		50				55					60				
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
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Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
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Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
			100					105					110		
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		115					120					125			
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Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
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Asp	Leu	Gly	Val	Thr	Thr	Ser	Val	Pro	Glu	Val	Pro	Met	Met	Glu	Lys

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 Ala Leu Gly Asn Pro Gly Lys Pro Tyr Gly Ala Asp Asp Phe Leu Pro
 275 280 285
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 Glu Gly Ser Tyr Tyr Leu Thr Thr Thr Tyr Gly Ala Leu Glu His Ile
 325 330 335
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 340 345 350
 Gln Asp Ser Ile His Arg Trp Glu Arg Arg Arg Thr Leu Asn Lys Ala
 355 360 365
 Arg Ala Ser Arg Ser Ser Val Gln Asp Phe Ile Cys Val Ser Tyr Leu
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<210> 4003

<211> 581

<212> DNA

<213> Homo sapiens

<400> 4003

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<210> 4004

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4004

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Leu Ala Leu Lys Phe Thr Cys Ser Arg Ala Lys Asp Val Ile Ile Pro
      35           40           45
Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
      50           55           60
Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
65           70           75           80
Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
      85           90           95
Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
      100          105          110
Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
      115          120          125
Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
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<212> DNA

<213> Homo sapiens

<400> 4005

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35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu
100 105 110
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr
130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
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His Ala Val Asp Glu Glu Leu Ala Ser Ser Pro Val Cys Met Asp Ser
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Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg
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<210> 4007
<211> 2313
<212> DNA
<213> Homo sapiens

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<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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		20						25					30		
Ser	Glu	Ala	Ser	Lys	Glu	Asn	Arg	Asp	Ile	Glu	Ile	Ser	Thr	Glu	Glu
		35				40						45			
Glu	Lys	Asp	Thr	Gly	Asp	Leu	Lys	Asp	Ser	Ser	Leu	Leu	Lys	Thr	Lys
	50					55					60				
Arg	Lys	His	Lys	Lys	Lys	His	Lys	Glu	Arg	His	Lys	Met	Gly	Glu	Glu
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Val	Ile	Pro	Leu	Arg	Val	Leu	Ser	Lys	Ser	Glu	Trp	Met	Asp	Leu	Lys
			85					90					95		
Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
			100					105					110		
Thr	Ile	Ser	Gln	Ile	Lys	Ser	Glu	Ser	Glu	Met	Glu	Thr	Asp	Ser	Gly
	115					120						125			
Val	Pro	Gln	Asn	Thr	Gly	Met	Lys	Asn	Glu	Lys	Thr	Ala	Asn	Arg	Glu
	130					135					140				
Glu	Cys	Arg	Thr	Gln	Glu	Lys	Val	Asn	Ala	Thr	Gly	Pro	Gln	Phe	Val
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Ser	Gly	Val	Ile	Val	Lys	Ile	Ile	Ser	Thr	Glu	Pro	Leu	Pro	Gly	Arg
			165					170					175		
Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
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Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
	195					200					205				
Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
	210					215					220				
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
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Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
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Arg	Leu	Ala	Lys	Thr	Gln
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<210> 4009
 <211> 675
 <212> DNA
 <213> Homo sapiens

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<210> 4010
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
 50 55 60
 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
 65 70 75 80
 Pro Asn Glu Ser Asn Lys Ile Leu Val Asn Lys Asp Val Pro Gln Lys

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			100					105					110		
Leu	Ala	Pro	Glu	Ile	Leu	Thr	Gly	Asp	Asn	Gln	Tyr	Tyr	Cys	Glu	Asn
		115					120					125			
Cys	Ala	Ser	Leu	Gln	Asn	Ala	Glu	Lys	Thr	Met	Gln	Ile	Thr	Glu	Glu
		130				135				140					
Pro	Glu	Tyr	Leu	Ile	Leu	Thr	Leu	Leu	Arg	Phe	Ser	Tyr	Asp	Gln	Lys
145					150				155					160	
Tyr	His	Val	Arg	Arg	Lys	Ile	Leu	Asp	Asn	Val	Ser	Leu	Pro	Leu	Val
			165					170					175		
Leu	Glu	Leu	Pro	Val	Lys	Arg	Ile	Thr	Ser	Phe	Ser	Ser	Leu	Ser	Glu
			180					185					190		
Ser	Trp	Ser	Val	Asp	Val	Asp	Phe	Thr	Asp	Leu	Ser	Glu	Asn	Leu	Ala
		195					200					205			
Lys	Lys	Leu	Lys	Pro	Ser	Gly	Thr	Asp	Glu	Ala	Ser	Cys	Thr	Lys	Leu
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<210> 4011

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4011

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<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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		20						25					30		
Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
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Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
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Gly	Ile	Thr	Thr	Glu	Gln	Leu	Asp	Ala	Leu	Gly	Cys	Arg	Ile	Cys	Leu
		65			70					75				80	
Gly	Asn	Thr	Tyr	His	Leu	Gly	Leu	Arg	Pro	Gly	Pro	Glu	Leu	Ile	Gln
			85					90						95	
Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
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Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
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Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
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Ser	Pro	Tyr	Asp	Gly	Asn	Glu	Thr	Leu	Leu	Ser	Pro	Glu	Lys	Ser	Val
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Gln	Ile	Gln	Asn	Ala	Leu	Gly	Ser	Asp	Ile	Ile	Met	Gln	Leu	Asp	Asp
			165					170						175	
Val	Val	Ser	Ser	Thr	Val	Thr	Gly	Pro	Arg	Val	Glu	Glu	Ala	Met	Tyr
		180					185						190		
Arg	Ser	Ile	Arg	Trp	Leu	Asp	Arg	Cys	Ile	Ala	Ala	His	Gln	Arg	Pro
		195				200						205			
Asp	Lys	Gln	Asn	Leu	Phe	Ala	Ile	Ile	Gln	Gly	Gly	Leu	Asp	Ala	Asp
		210				215						220			
Leu	Arg	Ala	Thr	Cys	Leu	Glu	Glu	Met	Thr	Lys	Arg	Asp	Val	Pro	Gly

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225          230          235          240
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          260          265          270
Tyr Leu Met Gly Val Gly Tyr Ala Thr Asp Leu Val Val Cys Val Ala
          275          280          285
Leu Gly Cys Asp Met Phe Asp Cys Val Phe Pro Thr Arg Thr Ala Arg
          290          295          300
Phe Gly Ser Ala Leu Val Pro Thr Gly Asn Leu Gln Leu Arg Lys Lys
305          310          315          320
Val Phe Glu Lys Asp Phe Gly Pro Ile Asp Pro Glu Cys Thr Cys Pro
          325          330          335
Thr Cys Gln Lys His Ser Arg Ala Phe Leu His Ala Leu Leu His Ser
          340          345          350
Asp Asn Thr Ala Ala Leu His His Leu Thr Val His Asn Ile Ala Tyr
          355          360          365
Gln Leu Gln Leu Met Ser Ala Val Arg Thr Ser Ile Val Glu Lys Arg
          370          375          380
Phe Pro Asp Phe Val Arg Asp Phe Met Gly Ala Met Tyr Gly Asp Pro
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<210> 4013
 <211> 1419
 <212> DNA
 <213> Homo sapiens

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 gccaggtg ccattcctcg aagcacctcc ttcgaccgga agctgcccga tggcagcaga
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 420
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 480
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 1200
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 1260
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 1320
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<210> 4014

<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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			20					25					30		
Thr	Pro	Ala	Leu	Gln	Pro	Leu	Ser	Arg	Ala	Ser	Pro	Ile	Pro	Gly	Thr
		35					40					45			
Pro	Asp	Arg	Leu	Pro	Cys	Gln	Gln	Leu	Leu	Gln	Gln	Ala	Gln	Ala	Ala
	50					55				60					
Ile	Pro	Arg	Ser	Thr	Ser	Phe	Asp	Arg	Lys	Leu	Pro	Asp	Gly	Thr	Arg
65					70				75				80		
Ser	Ser	Pro	Ser	Asn	Gln	Ser	Ser	Ser	Ser	Asp	Pro	Gly	Pro	Gly	Gly
			85						90				95		
Ser	Gly	Pro	Trp	Arg	Pro	Gln	Val	Gly	Tyr	Asp	Gly	Cys	Gln	Ser	Pro
			100					105					110		
Leu	Leu	Leu	Glu	His	Gln	Gly	Ser	Gly	Pro	Leu	Glu	Cys	Asp	Gly	Ala
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Arg	Glu	Arg	Glu	Asp	Thr	Met	Glu	Ala	Ser	Arg	His	Pro	Glu	Thr	Lys
	130					135					140				
Trp	His	Gly	Pro	Pro	Ser	Lys	Val	Leu	Gly	Ser	Tyr	Lys	Glu	Arg	Ala
145					150					155				160	
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<212> DNA
<213> Homo sapiens
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240
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 360
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 420
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 480
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 600
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 720
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<210> 4016

<211> 95

<212> PRT

<213> Homo sapiens

<400> 4016

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			20					25					30		
Asn	Arg	Arg	Met	Lys	Trp	Lys	Lys	Ile	Val	Leu	Gln	Gly	Gly	Gly	Leu
		35				40					45				
Glu	Ser	Pro	Thr	Lys	Pro	Lys	Gly	Arg	Pro	Lys	Lys	Asn	Ser	Ile	Pro
		50				55					60				
Thr	Ser	Glu	Gln	Leu	Thr	Glu	Gln	Glu	Arg	Ala	Lys	Asp	Ala	Glu	Lys
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<210> 4017

<211> 1521

<212> DNA

<213> Homo sapiens

<400> 4017

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 240

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<210> 4018

<211> 480

<212> PRT

<213> Homo sapiens

<400> 4018

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				35				40				45				
Val	Ala	Trp	Asp	Tyr	Gly	Arg	Leu	Ala	Leu	Val	Thr	Asp	Ala	Asp	Arg	
				50				55				60				
Leu	Arg	Arg	Gln	Glu	Arg	Asp	Arg	Val	Glu	Gln	Glu	Tyr	Val	Ala	Ser	
65					70				75				80			
Ala	Met	His	Gly	Asp	Ser	His	Asp	Arg	Tyr	Glu	Arg	Leu	Thr	Phe	Val	
				85				90				95				
Ser	Ser	Ser	Val	Asp	Phe	Asp	Gln	Arg	Asp	Asn	Gly	Phe	Cys	Ser	Trp	
				100				105				110				
Leu	Thr	Ala	Ile	Phe	Arg	Ile	Lys	Asp	Asp	Glu	Ile	Arg	Asp	Lys	Cys	
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Leu	Leu	Val	Val	Val	Gly	Val	Leu	Ser	Val	Gly	Ile	Val	Leu	Pro	Val	
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Asn	Phe	Ser	Gly	Asp	Leu	Leu	Glu	Asn	Asn	Ala	Tyr	Ser	Phe	Gly	Arg	
				165				170				175				
Thr	Thr	Ile	Ala	Asn	Leu	Lys	Ser	Gly	Asn	Asn	Leu	Leu	Trp	Leu	His	
				180				185				190				
Thr	Ser	Phe	Ala	Phe	Leu	Tyr	Leu	Leu	Leu	Thr	Val	Tyr	Ser	Met	Arg	
				195				200				205				
Arg	His	Thr	Ser	Lys	Met	Arg	Tyr	Lys	Glu	Asp	Asp	Leu	Val	Lys	Arg	
				210				215				220				
Thr	Leu	Phe	Ile	Asn	Gly	Ile	Ser	Lys	Tyr	Ala	Glu	Ser	Glu	Lys	Ile	
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Lys	Lys	His	Phe	Glu	Glu	Ala	Tyr	Pro	Asn	Cys	Thr	Val	Leu	Glu	Ala	
				245				250				255				
Arg	Pro	Cys	Tyr	Asn	Val	Ala	Arg	Leu	Met	Phe	Leu	Asp	Ala	Glu	Arg	
				260				265				270				
Lys	Lys	Ala	Glu	Arg	Gly	Lys	Leu	Tyr	Phe	Thr	Asn	Leu	Gln	Ser	Lys	
				275				280				285				
Glu	Asn	Val	Pro	Thr	Met	Ile	Asn	Pro	Lys	Pro	Cys	Gly	His	Phe	Cys	
				290				295				300				
Cys	Cys	Val	Val	Arg	Gly	Cys	Glu	Gln	Val	Glu	Ala	Ile	Glu	Tyr	Tyr	
305					310				315				320			
Thr	Lys	Leu	Glu	Gln	Lys	Leu	Lys	Glu	Asp	Tyr	Lys	Arg	Glu	Lys	Gly	
				325				330				335				
Lys	Val	Asn	Glu	Lys	Pro	Leu	Gly	Met	Ala	Phe	Val	Thr	Phe	His	Asn	
				340				345				350				
Glu	Thr	Ile	Thr	Ala	Ile	Ile	Leu	Lys	Asp	Phe	Asn	Val	Cys	Lys	Cys	
				355				360				365				
Gln	Gly	Cys	Thr	Cys	Arg	Gly	Glu	Pro	Arg	Pro	Ser	Ser	Cys	Ser	Glu	
				370				375				380				
Ser	Leu	His	Ile	Pro	Asn	Trp	Thr	Gly	Ser	Tyr	Ala	Pro	Asp	Pro	Gln	
385					390				395				400			
Asn	Ile	Tyr	Trp	Glu	His	Leu	Ser	Ile	Arg	Gly	Phe	Ile	Trp	Trp	Leu	
				405				410				415				
Arg	Cys	Leu	Val	Ile	Asn	Val	Val	Leu	Phe	Ile	Leu	Leu	Phe	Phe	Leu	
				420				425				430				
Thr	Thr	Pro	Ala	Ile	Ile	Ile	Thr	Thr	Met	Asp	Lys	Phe	Asn	Val	Thr	
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Lys	Pro	Val	Glu	Tyr	Leu	Asn	Asn	Pro	Ile	Ile	Thr	Gln	Phe	Phe	Pro	

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 <212> DNA
 <213> Homo sapiens

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<210> 4020

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4020

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			20					25					30		
Leu	Val	Cys	Gly	Leu	Leu	Leu	Val	Ile	Ala	Leu	Gly	Cys	Thr	Cys	Lys
		35					40					45			
Leu	Tyr	Ala	Ile	Arg	Thr	Gln	Glu	Tyr	Ser	Ile	Phe	Ala	Pro	Leu	Ser
	50					55				60					
Arg	Met	Glu	Ala	Glu	Ile	Val	Gln	Gln	Gln	Ala	Pro	Pro	Ser	Tyr	Gly

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Gln	Leu	Ile	Ala	Gln	Gly	Ala	Ile	Pro	Pro	Val	Glu	Asp	Phe	Pro	Thr
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Glu	Asn	Pro	Asn	Asp	Asn	Ser	Val	Leu	Gly	Asn	Leu	Arg	Ser	Leu	Leu
			100					105					110		
Gln	Ile	Leu	Arg	Gln	Asp	Met	Thr	Pro	Gly	Gly	Gly	Pro	Gly	Ala	Arg
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Gly	Gly	Thr	Gly	Pro	Ala	Arg	Glu	Gly	Gly	Ala	Val	Gly	Gly	Gln	Asp
			180				185					190			
Gly	Glu	Gln	Ala	Pro	Pro	Leu	Pro	Ile	Lys	Ala	Pro	Leu	Pro	Ser	Ala
			195				200				205				
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<213> Homo sapiens

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Lys Leu Leu Phe Arg Asp Arg Lys Leu Arg Leu His Leu Tyr Asp Ile			

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 Glu Val Pro Leu Pro Ala Lys Gln His Val Pro Glu Ala Glu Arg Glu
 1570 1575 1580
 Glu Val Arg Asp Trp Val Leu Thr Val Ser Met Asp Gln Arg Leu Glu
 1585 1590 1595 1600
 Gln Val Leu Pro Arg Asp Glu Arg Gly Ala Tyr Glu Ala Ser Leu Val
 1605 1610 1615
 Ala Ala Ser Thr Gly Val Arg Ala Leu Pro Cys Leu Ile Thr Gly Tyr
 1620 1625 1630
 Pro Ile Leu Arg Asn Lys Ile Glu Phe Lys Arg Pro Gly Lys Ala Ala
 1635 1640 1645
 Asn Lys Asp Asn Trp Asn Lys Phe Leu Met Ala Ile Lys Thr Ser His
 1650 1655 1660
 Ser Pro Val Cys Gln Asp Val Leu Lys Phe Ile Ser Gln Trp Cys Gly
 1665 1670 1675 1680
 Gly Leu Pro Ser Thr Ser Phe Ser Phe Gln
 1685 1690

<210> 4025

<211> 908

<212> DNA

<213> Homo sapiens

<400> 4025

ttaagaactc acactggann gaaaccctat gaatgcaatc actgtgggaa agcatttagt
 60
 gatccctcat cccttagact gcatttgaga attcactctg gagaaaaacc ctatgaatgt
 120
 aaccagtgtt ttcacgtttt ccgcaccagt tgtaacctta aaagccacaa gaggattcac
 180
 acggggggaga atcaccatga atgtaatcag tgtggaaaag ctttcagcac aaggctcctct
 240
 ctcaactgggc acaattgcat tcatacaggg gagaaacctt atgaatgtaa ggaatgtggg
 300
 aaaaccttta tgtataatc atcccttatt caacatctga gaactcatac tggagagaaa
 360
 ccctatgaat gtaaggagtg tgggaaagcc tttaggcaac attcacacct tgtcacacac
 420
 cagaaaatcc atactggaga gaagccctat cagtgcactg aatgtgggaa agccttcagg
 480
 cggcggttcac tccttattca acatcggaga attcatagtg gtgagaagcc ctatgaatgt
 540
 aaggaatgtg ggaagctctt catttggcgc acagctttcc tcaaacaatca gagcctgcat
 600

gctggagaga aacttgaaga atgtgagaaa nnaccttcag caaggatgag gagcttaggg
 660
 gagnagcaga aaattcacca agaagagaaa gcttattgggt gtaatcagtg tggtagggct
 720
 ttccagggca gctcagacct catcggacat caggtaactc atacaggaga gaaaccatat
 780
 gaatgtaaag aatgtggana aactttcaat cagagctcag accttctgag acatcataga
 840
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 900
 tcagatct
 908

<210> 4026

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4026

Leu	Arg	Thr	His	Thr	Gly	Xaa	Lys	Pro	Tyr	Glu	Cys	Asn	His	Cys	Gly
1				5					10					15	
Lys	Ala	Phe	Ser	Asp	Pro	Ser	Ser	Leu	Arg	Leu	His	Leu	Arg	Ile	His
			20					25					30		
Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Gln	Cys	Phe	His	Val	Phe	Arg
			35				40						45		
Thr	Ser	Cys	Asn	Leu	Lys	Ser	His	Lys	Arg	Ile	His	Thr	Gly	Glu	Asn
			50				55				60				
His	His	Glu	Cys	Asn	Gln	Cys	Gly	Lys	Ala	Phe	Ser	Thr	Arg	Ser	Ser
65				70					75					80	
Leu	Thr	Gly	His	Asn	Cys	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys
			85						90					95	
Lys	Glu	Cys	Gly	Lys	Thr	Phe	Met	Tyr	Asn	Ser	Ser	Leu	Ile	Gln	His

100	105	110
Leu Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly		
115	120	125
Lys Ala Phe Arg Gln His Ser His Leu Val Thr His Gln Lys Ile His		
130	135	140
Thr Gly Glu Lys Pro Tyr Gln Cys Thr Glu Cys Gly Lys Ala Phe Arg		
145	150	155
Arg Arg Ser Leu Leu Ile Gln His Arg Arg Ile His Ser Gly Glu Lys		
165	170	175
Pro Tyr Glu Cys Lys Glu Cys Gly Lys Leu Phe Ile Trp Arg Thr Ala		
180	185	190
Phe Leu Lys His Gln Ser Leu His Ala Gly Glu Lys Leu Glu Glu Cys		
195	200	205
Glu Lys Xaa Pro Ser Ala Arg Met Arg Ser Leu Gly Glu Xaa Gln Lys		
210	215	220
Ile His Gln Glu Glu Lys Ala Tyr Trp Cys Asn Gln Cys Gly Arg Ala		
225	230	235
Phe Gln Gly Ser Ser Asp Leu Ile Gly His Gln Val Thr His Thr Gly		
245	250	255
Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Xaa Thr Phe Asn Gln Ser		
260	265	270
-----Ser Asp Leu Leu Arg His His Arg Ile His Ser Gly Glu Lys Pro Tyr		
275	280	285
Val Cys Asn Lys Cys Gly Lys Ser Phe Arg Gly Ser Ser Asp		
290	295	300

<210> 4027
 <211> 941
 <212> DNA
 <213> Homo sapiens

<400> 4027
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 120
 ggattgattc agatgggatg tgttttccag agcacagaag tgaaacacgt gaccaaggta
 180
 gaatggatat tttcaggacg gcgcgcaaag gaggagattg tatttcgtta ctaccacaaa
 240
 ctccagatgt ctgcggagta ctcccagagc tggggccact tccagaatcg tgtgaacctg
 300
 gtgggggaca ttttcgcaa tgacgggtcc atcatgcttc aaggagttag ggagtcagat
 360
 ggaggaaact acacctgcag tatccaccta gggaaacctgg tgttcaagaa aaccattgtg
 420
 ctgcatgtca gcccggaaga gcctcgaaca ctggtgaccc cggcagccct gaggcctctg
 480
 gtcttgggtg gtaatcagtt ggtgatcatt gtgggaattg tctgtgccac aatcctgctg
 540
 ctcctgttc tgatattgat cgtgaagaag acctgtggaa ataagagttc agtgaattct
 600
 acagtcttgg tgaagaacac gaagaagact aatccagaga tgaaagaaaa accctgccat
 660

tttgaaagat gtgaagggga ggtgaacaca cgcttcagcc taaaacacta agtagatgca
 720
 ggctcgggcc gttctcatat ccccggaac catatcttac ccattgtatg tcgcagcttg
 780
 caggccagtg cttggcacag agcagggact caggaagcct ttgtcactaa agtaagagcc
 840
 tctgcggagt acagtgcatt gggcggctg ggacaccccc aggcagcaga tcctgggtatt
 900
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 941

<210> 4028

<211> 236

<212> PRT

<213> Homo sapiens

<400> 4028

Ala Arg Gln Gly Thr Tyr Ile Cys Glu Ile Arg Leu Lys Gly Glu Ser
 1 5 10 15
 Gln Val Phe Lys Lys Ala Val Val Leu His Val Leu Pro Glu Glu Pro
 20 25 30
~~Lys Glu Leu Met Val His Val Gly Gly Leu Ile Gln Met Gly Cys Val~~
 35 40 45
 Phe Gln Ser Thr Glu Val Lys His Val Thr Lys Val Glu Trp Ile Phe
 50 55 60
 Ser Gly Arg Arg Ala Lys Glu Glu Ile Val Phe Arg Tyr Tyr His Lys
 65 70 75 80
 Leu Arg Met Ser Ala Glu Tyr Ser Gln Ser Trp Gly His Phe Gln Asn
 85 90 95
 Arg Val Asn Leu Val Gly Asp Ile Phe Arg Asn Asp Gly Ser Ile Met
 100 105 110
 Leu Gln Gly Val Arg Glu Ser Asp Gly Gly Asn Tyr Thr Cys Ser Ile
 115 120 125
 His Leu Gly Asn Leu Val Phe Lys Lys Thr Ile Val Leu His Val Ser
 130 135 140
 Pro Glu Glu Pro Arg Thr Leu Val Thr Pro Ala Ala Leu Arg Pro Leu
 145 150 155 160
 Val Leu Gly Gly Asn Gln Leu Val Ile Ile Val Gly Ile Val Cys Ala
 165 170 175
 Thr Ile Leu Leu Leu Pro Val Leu Ile Leu Ile Val Lys Lys Thr Cys
 180 185 190
 Gly Asn Lys Ser Ser Val Asn Ser Thr Val Leu Val Lys Asn Thr Lys
 195 200 205
 Lys Thr Asn Pro Glu Met Lys Glu Lys Pro Cys His Phe Glu Arg Cys
 210 215 220
 Glu Gly Glu Val Asn Thr Arg Phe Ser Leu Lys His
 225 230 235

<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

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 120
 ctacatgctg ctgctgggtgc tgccgtgcgt ggcgctcagc gaggtcagca tgcaggggcga
 180
 gcacatagcg ccgcagaaga tgatgctgta cccggtgctc agtctcgcca ccgtcaatgt
 240
 ggtggggccgt gctggcgcgcg gccgccaaca tggcgctggt ccgggacagc cgtgtctcgg
 300
 ccattcttctg cggcaaaaac gtgggtggcg tcgccaccaa ggctgcacc tnnctctgga
 360
 gtaccgccgc caggtgcgcg acttcccnng ccgcctgcgc tatcactgga gctgcagccg
 420
 ccacccccgc agcgcaactc ggtgccgccc ccgccgccc cgctgcacgg ccgcctggg
 480
 ncgccccac atgtectcgc caacgcgtga cccctggac acgtgacagg gccgcgcgg
 540
 ccccccacac gccctgggg cgagagaca ccgggttggc ttggggcgcg cggtttgcac
 600
 gggatggggg gggggcgggc tcccctaggg acaggtgcct cgagtgcctg tgctggggg
 660
 cccgcggcgc cttcttcac tcaggaatct ctgcgaccgc ggatcctcag cccccgctcc
 720
 accagcccgc ccagcgcgt gggctctgtt gggaggcctg ggccggagca gagcagaggt
 780
 gatccggccc ctgcctgctg ggccgcccgg gttggaagg agggcagtgt gggcggagat
 840
 ctgctccttc ggtggggggc tctggctcag atttggggcc aaggaggcct ctgtcatttt
 900
 aaagactcg
 909

<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

Arg	Pro	Pro	Val	Leu	Gly	Gly	Ala	Gly	Pro	Ala	Gly	Pro	Ala	Gly	His
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Ala	Gly	Gln	Pro	Val	Gly	Ala	Ala	Ala	Leu	Arg	Ala	Ala	Ala	Val	Gly
			20					25					30		
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly	Ala	Ala
			35				40					45			
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala	His	Ser	Ala
			50				55				60				
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His	Arg	Gln	Cys
65				70				75					80		
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys	Ser	Gly	Thr
			85					90					95		
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp	Arg	Ser	Pro
			100					105					110		
Pro	Arg	Pro	Ala	Pro	Xaa	Pro	Gly	Val	Pro	Pro	Pro	Gly	Ala	Arg	Leu

115	120	125
Pro Xaa Pro Pro Ala Leu Ser Leu Glu Leu Gln Pro Pro Pro Pro Gln		
130	135	140
Arg Asn Ser Val Pro Pro Pro Pro Pro Pro Leu His Gly Pro Pro Gly		
145	150	155
Xaa Pro Pro His Val Leu Ala His Ala		160
165		

<210> 4031
 <211> 1406
 <212> DNA
 <213> Homo sapiens

<400> 4031
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 ctcaggaaag aaattgcagg cttcgaacaa cagaaagcaa aagaattagc tcgaatagaa
 120
 gaggtttaaaa aggaggagat gaggaagcta caaaaggaac gtaaagtttt tgaaaagtat
 180
 actacagctg caagaacttt tccagataaa aagggaacgtg aagaaataca gactttaaaa
 240
 cagcaaatac cagattttacg ggaagatttg aaaagaaagg agaccaaatg gtcaagtaca
 300
 cacagccgtc tcagaagcca gatacaaatg ttagtcagag agaacacaga cctccgggaa
 360
 gaaataaaaag tgatggaaaag attccgactg gatgcctgga agagagcaga agccatagag
 420
 agcagcctcg aggtggagaa gaaggacaag cttgcgaaca catctgttcg atttcaaaac
 480
 agtcagattt cttcaggaac ccaggtagaa aaatacaaga aaaattatct tccaatgcaa
 540
 ggcaatccac ctcgaagatc caagtctgca cctcctcgtg atttaggcaa tttggataag
 600
 ggacaggctg cctctcccag ggagccactt gaaccactga acttcccaga tcttgaatat
 660
 aaagaggagg aggaagacca agacatacag ggagaaatca gtcacctga tggaaagggtg
 720
 gaaaagggtt ataagaatgg gtgccgtggt atactgtttc ccaatggaac tcgaaaggaa
 780
 gtgagtgcag atgggaagac catcactgtc actttcttta atggtgacgt gaagcagggtc
 840
 atgccagacc aaagagtgat ctactactat gcagctgccc agaccactca caccacatac
 900
 ccggaggggac tggaagtctt acattttctca agtggacaaa tagaaaaaca ttaccagat
 960
 ggaagaaaaag aaatcacgtt tctgaccag actgttaaaa acttatttcc tgatggacaa
 1020
 gaagaaagca ttttcccaga tggtaacaatt gtcagagtac aacgtgatgg caacaaactc
 1080
 atagagttaa ataatggcca aagagaacta catactgccc agttcaagag acgggaatac
 1140
 ccagatggca ctgttaaaac cgtatatgca aacggtcatc aagaaacgaa gtacagatcc
 1200

ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga
 1260
 tcctcatgtg atcatgaagt aacagtaact gactttttat gttaaaaaat gtacatttac
 1320
 tgtggattct gtttaattta ttgtgtatgt gtggggaaaa gattggattc taaaataaaa
 1380
 gtttaccctg tggcaaaaaa aaaaaa
 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

Xaa	Ala	Glu	Asn	Ala	Ser	Leu	Ala	Lys	Leu	Arg	Ile	Glu	Arg	Glu	Ser
1			5					10						15	
Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys
			20					25					30		
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg	
			35				40					45			
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
			50			55					60				
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65					70				75					80	
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
			85					90						95	
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
			100					105					110		
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
			115					120				125			
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
			130				135					140			
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
145					150					155				160	
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr
				165				170						175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
			180					185					190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
			195				200					205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
			210			215					220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
225					230					235				240	
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
				245					250					255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
			260					265					270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
			275				280					285			
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu
			290			295					300				
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp

305 310 315 320
 Gly Arg Lys Glu Ile Thr Phe Pro Asp Gln Thr Val Lys Asn Leu Phe
 325 330 335
 Pro Asp Gly Gln Glu Glu Ser Ile Phe Pro Asp Gly Thr Ile Val Arg
 340 345 350
 Val Gln Arg Asp Gly Asn Lys Leu Ile Glu Phe Asn Asn Gly Gln Arg
 355 360 365
 Glu Leu His Thr Ala Gln Phe Lys Arg Arg Glu Tyr Pro Asp Gly Thr
 370 375 380
 Val Lys Thr Val Tyr Ala Asn Gly His Gln Glu Thr Lys Tyr Arg Ser
 385 390 395 400
 Gly Arg Ile Arg Val Lys Asp Lys Glu Gly Asn Val Leu Met Asp Thr
 405 410 415
 Glu Leu

<210> 4033
 <211> 487
 <212> DNA
 <213> Homo sapiens

-----<400> 4033-----
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 ggggttttgat gggatagcag acaggtggat tgcagagctc cggaagacc cagccgggtg
 120
 tcaagaagag ccctcctagt ttggcctcta actggctgtg cgaccccagg caggtcactt
 180
 gtccctctctg ggaagcagct gaataatgaa cactgggact tteccaggct ggcttctcac
 240
 tgcagagcag aggaaaagca ttctgggggc ctgctatgga gggtcattta tccagtttac
 300
 aacttccacg gccggccctc aatggcttcc tttctctccc acaagagcgc tgggccaagc
 360
 cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgta
 420
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 480
 ccagtcc
 487

<210> 4034
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 4034
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 1 5 10 15
 Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
 20 25 30
 Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
 35 40 45
 Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

50 55 60
 Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro
 65 70 75 80
 Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser
 85 90

<210> 4035
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 4035
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 aatgttcttg aatcctatgt gagggacaaa cattcagacc ccagcagcaa tgttctggaa
 120
 tcctatggga gggacaaaact ctcagaaaat agcaagagta ttttggaaat ctatctgagg
 180
 tataaacact cagaacctca tagcagtgtt caggaatcct atgtgaggga caaacattca
 240
 gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
 300
 agtgttcttg aatccttttt ttttttgaag ctttcaatct ctt
 343

<210> 4036
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 4036
 Xaa Leu Asn Ser Ser Val Met Glu Phe His Val Arg His Lys His Ser
 1 5 10 15
 Asp Asn Pro Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser
 20 25 30
 Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser
 35 40 45
 Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
 50 55 60
 Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
 65 70 75 80
 Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
 85 90 95
 Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Phe Leu Lys Leu Ser
 100 105 110
 Ile Ser

<210> 4037
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 4037

tttttttttt ttttttttgg aaagagaaaa tatatttact attcattaag tggatgctggg
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 tcatcataaa ggtcttcatt ctcatcctct tcacgttgag taggctgagg aggaggaaga
 120
 ggaggagaag gggttgtct tgcgtctca gggcggcaga ggcagaagag aatctgagca
 180
 tacgtggacc ttagccagg tgggcataga taaaaggaaa tattgtttgc cagtccctgc
 240
 tggaatgatg cctttacaca tctgtctgat ctgattgctc cactgttttc tgacttctct
 300
 tccctttcca gggttctagc ctgttcctct agcccatga tggctgtgga catcgagtac
 360
 agatacaact gcatggctcc ttccttgctc caagagaggt ttgcctttaa gatctcacca
 420
 aagcccagca aaccactgag gccttgatt cagctgagca gcaagaatga agccagtgga
 480
 atggtggccc cggtgtcca ggagaagaag gtgaaaaagc ggggtgctct cgcagacaac
 540
 caggggctgg ccttgacaat ggtcaaagtg ttctcggaat tcgatgaccc gctagatatg
 600
 ccattcaaca tcaccgagct cctagacaac attgtgagct tgacgacagc agagagcgag
 660
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 720
 caggccgacc acgtctgcct t
 741

<210> 4038
 <211> 134
 <212> PRT
 <213> Homo sapiens

<400> 4038
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 Arg Gln Glu Arg Phe Ala Phe Lys Ile Ser Pro Lys Pro Ser Lys Pro
 20 25 30
 Leu Arg Pro Cys Ile Gln Leu Ser Lys Asn Glu Ala Ser Gly Met
 35 40 45
 Val Ala Pro Ala Val Gln Glu Lys Lys Val Lys Lys Arg Val Ser Phe
 50 55 60
 Ala Asp Asn Gln Gly Leu Ala Leu Thr Met Val Lys Val Phe Ser Glu
 65 70 75 80
 Phe Asp Asp Pro Leu Asp Met Pro Phe Asn Ile Thr Glu Leu Leu Asp
 85 90 95
 Asn Ile Val Ser Leu Thr Thr Ala Glu Ser Glu Ser Phe Val Leu Asp
 100 105 110
 Phe Ser Gln Pro Ser Ala Asp Tyr Leu Asp Phe Arg Asn Arg Leu Gln
 115 120 125
 Ala Asp His Val Cys Leu
 130

<210> 4039
 <211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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120
gagcgaggag ccctcgacg cgctagtctg cgagtgcgag ctcagcccgg cacctgttcc
180
tccagcgccg ccgccttccc acccctcgga cccgcgcgcg tcgcggcgcc cgcccgttcc
240
tgcatgaat ccggccctag gcaaccagac ggacgtggcg ggcccttcctg gccaacagca
300
gcgagggcgc gtgagcgagcc gtgcgctgct gaccccaggc gtccgtggtg accgacgacg
360
gcttcgcgga gggaggcccg gacgagcgta gcctgtacat aatgcgcgtg gtgcagatcg
420
cggatcatgt cggtctctca ctcaccgtgg tcttcggcat cttcttcctc ggctgcaatc
480
tgctcatcaa gtccgagggc atgatcaact tctcgtgaa ggaccggagg ccgtctaagg
540
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35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
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Arg-Arg-Pro-Trp
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<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

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<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

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Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
          35           40           45
Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
          50           55           60
Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
          65           70           75           80
Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
          85           90           95
Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
          100          105          110
Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
          115          120          125
Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
          130          135          140
-----Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
          145          150          155          160
Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
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Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
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<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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 35 40 45
 Lys Glu Glu Leu Val Lys Lys Arg Ile Glu Leu Lys His Asp Lys Lys
 50 55 60
 Ala Arg Ala Met Ala Lys Arg Thr Lys Asp Asn Phe His Gly Tyr Asn
 65 70 75 80
 Gly Ile Pro Ile Glu Glu Lys Ser Lys Lys Arg Gln Ala Thr Glu Ser
 85 90 95
 His Thr Ser Gln Gly Thr Asp Arg Glu Tyr Glu Met Glu Glu Glu Asn
 100 105 110
 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu
 115 120 125
 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys
 130 135 140
 Gly Ala Pro Pro Pro Met Asn Phe Thr Asp Leu Leu Arg Leu Ala Glu
 145 150 155 160
 Lys Lys Gln Phe Glu Pro Val Glu Ile Lys Val Val Lys Lys Ser Glu
 165 170 175
 Glu Arg Pro Met Thr Ala Glu Glu Leu Arg Glu Arg Glu Phe Leu Glu
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<210> 4046

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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 Lys Arg Lys Leu Leu Glu Asn Ser Thr Leu Asn Ser Lys Leu Leu Lys
 50 55 60
 Val Asn Gly Ser Thr Thr Ala Ile Cys Ala Thr Gly Leu Arg Asn Leu
 65 70 75 80
 Gly Asn Thr Cys Phe Met Asn Ala Ile Leu Gln Ser Leu Ser Asn Ile
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 Glu Gln Phe Cys Cys Tyr Phe Lys Glu Leu Pro Ala Val Glu Leu Arg
 100 105 110
 Asn Gly Lys Thr Ala Gly Arg Arg Thr Tyr His Thr Arg Ser Gln Gly
 115 120 125
 Asp Asn Asn Val Ser Leu Val Glu Glu Phe Arg Lys Thr Leu Cys Ala
 130 135 140
 Leu Trp Gln Gly Ser Gln Thr Ala Phe Ser Pro Glu Ser Leu Phe Tyr
 145 150 155 160
 Val Val Trp Lys Ile Met Pro Asn Phe Arg Gly Tyr Gln Gln Gln Asp
 165 170 175
 Ala His Glu Phe Xaa Ala Leu Pro Phe Gly Pro Pro Thr Leu Gly Xaa
 180 185 190
 Phe Arg Ala Val Ser Thr Val Phe Pro Ala Gln Gln Phe Cys Arg Arg
 195 200 205
 Ile Leu Leu Cys Leu Gln Val Xaa Lys Cys Cys Ile Asn Gly Ala Ser
 210 215 220
 Thr Val Val Thr Ala Ile Phe Gly Gly Ile Leu Gln Asn Glu Val Asn
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 Cys Leu Ile Cys Gly Thr Glu Ser Arg Lys Phe Asp Pro Phe Leu Asp
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	290		295		300										
Cys	Lys	Xaa	Lys	Gln	Lys	Ser	Thr	Lys	Lys	Phe	Trp	Ile	Gln	Lys	Leu
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Asp	Met	Lys	Cys	Tyr	Leu	Leu	Asp	Pro	Glu	Asn	Ser	Gly	Pro	Glu	Ser
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Cys	Leu	Tyr	Asp	Leu	Ala	Ala	Val	Val	Val	His	His	Gly	Ser	Gly	Val
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Gly	Ser	Gly	His	Tyr	Thr	Ala	Tyr	Ala	Thr	His	Glu	Gly	Arg	Trp	Phe
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His	Phe	Asn	Asp	Ser	Thr	Val	Thr	Leu	Thr	Asp	Glu	Glu	Thr	Val	Val
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Lys	Ala	Lys	Ala	Asn	Ile	Leu	Phe	Tyr	Val	Glu	His	Gln	Ala	Lys	Ala
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Gly	Ser	Asp	Lys	Leu											
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 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Val Ala Ile Gly Phe Thr Gly Gly Leu Val Phe Met Tyr Val Gln Cys
 35 40 45
 Lys Val Tyr Val Gln Leu Trp Arg Arg Leu Lys Ala Tyr Asn Arg Val
 50 55 60
 Ile Phe Val Gln Asn Cys Pro Asp Thr Ala Lys Lys Leu Glu Lys Asn
 65 70 75 80
 Phe-Ser-Cys-Asn-Val-Asn-Thr-Asp-Ile-Lys-Asp-Ala-Val-Val-Val-Pro
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 Val Pro Gln Thr Gly Ala Asn Ser Leu Pro Ser Ala Glu Gly Gly Pro
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 Pro Glu Val Val Ser Val
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<210> 4049
 <211> 1211
 <212> DNA
 <213> Homo sapiens

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 Arg Asp Ser Gln Ser Ser Asp Lys Gln Ile Leu Asn Ile Tyr Asp Leu
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 Val His Ala Leu Gln Glu Lys Asp Thr Gln Thr Lys Leu Glu Met Leu
 115 120 125
 Phe Lys Lys Asn Leu Phe Glu Met Ala Ile Asn Leu Ala Lys Ser Gln
 130 135 140
 His Leu Asp Ser Asp Gly Leu Ala Gln Ile Phe Met Gln Tyr Gly Asp
 145 150 155 160
 His Leu Tyr Ser Lys Gly Asn His Asp Gly Ala Val Gln Gln Tyr Ile
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 Arg Thr Ile Gly Lys Leu Glu Pro Ser Tyr Val Ile Arg Lys Phe Leu
 180 185 190
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Tyr Thr Lys Leu Lys Asp Ser Ser Lys Leu Glu Glu Phe Ile Lys Lys		
225	230	235
Lys Ser Glu Ser Glu Val His Phe Asp Val Glu Thr Ala Ile Lys Val		
245	250	255
Leu Arg Gln Ala Gly Tyr Tyr Ser His Ala Leu Tyr Leu Ala Glu Asn		
260	265	270
His Ala His His Glu Trp Tyr Leu Lys Ile Gln Leu Glu Asp Ile Lys		
275	280	285
Asn Tyr Gln Glu Ala Leu Arg Tyr Ile Gly Lys Leu Pro Phe Glu Gln		
290	295	300
Ala Glu Ser Asn Met Lys Arg Tyr Gly Lys Ile Leu Met His His Ile		
305	310	315
Pro Glu Gln Thr Thr Gln Leu Leu Lys Gly Leu Cys Thr Asp Tyr Arg		
325	330	335
Pro Ser Leu Glu Gly Arg Ser Asp Arg Glu Ala Pro Gly Cys Arg Ala		
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Asn Ser Glu Glu Phe Ile Pro Ile Phe Ala Asn Asn Pro Arg Glu Leu		
355	360	365
Lys Ala Phe Leu Glu His Met Ser Glu Val Gln Pro Asp Ser Pro Gln		
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 <212> DNA
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Gln Leu Glu Ser Ser Trp Glu Leu His Thr Asn Arg Gln Cys Ile Glu						
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Ser Glu Asn Thr Trp Arg Asp Leu Met Lys Thr Ala Leu Glu Asn Leu						
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Ile Val Leu Leu Lys Asp Glu Asn Thr Ile Ser Pro Tyr Glu Met Cys						
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Ser Ser Gly Leu Val Gln Ala Leu Leu Thr Val Leu Asn Asn Ser Met						

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Pro Ile Val Val Leu Ser Ser Ala Glu Asn Val Pro Gln Thr Glu Val		
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Ser Glu Asn Ala Glu Arg Lys Leu Gly Pro Asp Ser Ser Val Arg Thr		1280
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Pro Gly Glu Ser Ser Ala Ile Ser Met Gly Ile Val Ser Val Ser Ser		
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Leu Leu Ala Ala Gly Ala Pro Met Ser Ser Ser Ala Ser Val Pro Asn		
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Leu Ser Ser Arg Glu Thr Ser Ser Leu Glu Ser Phe Val Arg Arg Val		1360
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Ser Ser Ser Asp Asn Asn Thr Asn Thr Leu Gly Arg Asn Val Met Ser		
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Thr Ala Thr Ser Pro Leu Met Gly Ala Gln Ser Phe Pro Asn Leu Thr		
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Thr Pro Gly Thr Thr Ser Thr Val Thr Met Ser Thr Ser Ser Val Thr		
1425	1430	1435
Ser Ser Ser Asn Val Ala Thr Ala Thr Thr Val Leu Ser Val Gly Gln		1440
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Ser Leu Ser Asn Thr Leu Thr Thr Ser Leu Thr Ser Thr Ser Ser Glu		
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Ser Asp Thr Gly Gln Glu Ala Glu Tyr Ser Leu Tyr Asp Phe Leu Asp		
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Ser Cys Arg Ala Ser Thr Leu Leu Ala Glu Leu Asp Asp Asp Glu Asp		
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Leu Pro Glu Pro Asp Glu Glu Asp Asp Glu Asn Glu Asp Asp Asn Gln		
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Glu Asp Gln Glu Tyr Glu Glu Val Met Ile Leu Arg Arg Pro Ser Leu		
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Gln Arg Arg Ala Gly Ser Arg Ser Asp Val Thr His His Ala Val Thr		
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Ser Gln Leu Pro Gln Val Pro Ala Gly Ala Gly Ser Arg Pro Ile Gly		
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Glu Gln Glu Glu Glu Glu Tyr Glu Thr Lys Gly Gly Arg Arg Arg Thr		
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Trp Asp Asp Asp Tyr Val Leu Lys Arg Gln Phe Ser Ala Leu Val Pro		
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Ala Phe Asp Pro Arg Pro Gly Arg Thr Asn Val Gln Gln Thr Thr Asp		1600

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Gly Asn Val Lys Ser Asp Lys Leu Arg Arg Ile Trp Glu Pro Thr Tyr		
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Thr Ile Met Tyr Arg Glu Met Lys Asp Ser Asp Lys Glu Lys Glu Asn		
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Gln Leu Tyr Phe Thr Cys Thr Ser Phe Gly Ala Ser Arg Ala Ile Val		
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Trp Leu Gln Asn Arg Arg Glu Ala Thr Val Glu Arg Thr Arg Thr Thr		
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Ser Ser Val Arg Arg Asp Asp Pro Gly Glu Phe Arg Val Gly Arg Leu		
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Lys His Glu Arg Val Lys Val Pro Arg Gly Glu Ser Leu Met Glu Trp		
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1970	1975	1980
Val Glu Phe Leu Gly Glu Glu Gly Thr Gly Leu Gly Pro Thr Leu Glu		
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Phe Tyr Ala Leu Val Ala Ala Glu Phe Gln Arg Thr Asp Leu Gly Ala		
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Trp Leu Cys Asp Asp Asn Phe Pro Asp Asp Glu Ser Arg His Val Asp		
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Leu Gly Gly Gly Leu Lys Pro Pro Gly Tyr Tyr Val Gln Arg Ser Cys		

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Gly Leu Phe Thr Ala Pro Phe Pro Gln Asp Ser Asp Glu Leu Glu Arg		
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Ile Thr Lys Leu Phe His Phe Leu Gly Ile Phe Leu Ala Lys Cys Ile		
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Gln Asp Asn Arg Leu Val Asp Leu Pro Ile Ser Lys Pro Phe Phe Lys		2080
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Glu Ser Arg Gly Asp Arg Asp Leu His Cys Thr Glu Ser Gln Ser Glu		
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Ala Ser Thr Glu Glu Gly His Asp Ser Leu Ser Val Gly Ser Phe Glu		
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Glu Asp Ser Lys Ser Glu Phe Ile Leu Asp Pro Pro Lys Pro Lys Pro		
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Pro Ala Trp Leu Asn Gly Ile Leu Thr Trp Glu Asp Phe Glu Leu Val		2160
2165	2170	2175
Asn Pro His Arg Ala Arg Phe Leu Lys Glu Ile Lys Asp Leu Ala Ile		
2180	2185	2190
Lys Arg Arg Gln Ile Leu Ser Asn Lys Gly Leu Ser Glu Asp Glu Lys		
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Asn Thr Lys Leu Gln Glu Leu Val Leu Lys Asn Pro Ser Gly Ser Gly		
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Pro Pro Leu Ser Ile Glu Asp Leu Gly Leu Asn Phe Gln Phe Cys Pro		
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Ser Ser Arg Ile Tyr Gly Phe Thr Ala Val Asp Leu Lys Pro Ser Gly		
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Met Phe Asp Phe Cys Met His Thr Gly Ile Gln Lys Gln Met Glu Ala		
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Phe Arg Asp Gly Phe Asn Lys Val Phe Pro Met Glu Lys Leu Ser Ser		
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Ser Trp Ala Ala Glu Asp Ile Ile Asn Tyr Thr Glu Pro Lys Leu Gly		
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Tyr Thr Arg Asp Ser Pro Gly Phe Leu Arg Phe Val Arg Val Leu Cys		
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Gly Met Ser Ser Asp Glu Arg Lys Ala Phe Leu Gln Phe Thr Thr Gly		
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Cys Ser Thr Leu Pro Pro Gly Gly Leu Ala Asn Leu His Pro Arg Leu		
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<211> 533

<212> DNA

<213> Homo sapiens

<400> 4057

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<213> Homo sapiens

<400> 4058

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Phe	Ser	Asn	Ile	Ser	Ser	Ile	Tyr	Gln	Phe	His	Ser	Gln	Phe	Phe	Leu
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Pro	Glu	Leu	Gln	Arg	Arg	Leu	Asp	Asp	Trp	Thr	Ala	Asn	Pro	Arg	Ile
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Gly	Asp	Val	Ile	Gln	Lys	Leu	Ala	Pro	Phe	Leu	Lys	Met	Tyr	Ser	Glu
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Tyr	Val	Lys	Asn	Phe	Glu	Arg	Ala	Ala	Glu	Leu	Leu	Ala	Thr	Trp	Thr
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Asp	Lys	Ser	Pro	Leu	Phe	Gln	Glu	Val	Leu	Thr	Arg	Ile	Gln	Val	Arg
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Leu	Gly	Glu	Gly	Trp	Ser	Gln	His	Cys	His	Ser	Gln	His	Ala	Val	Ala
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Gln	Val	Ala	Leu	Ser	Asp	Ser	Gly	His	Leu	Pro	Gly	Ser	Ala	Ala	Ser
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<211> 3994

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<213> Homo sapiens

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 Arg Pro Gln Pro Gln Gln Leu Gly Ile Gln Gly Leu Gly Leu Asp Ser
 50 55 60
 Gly Ser Trp Ser Trp Ala Gln Ala Leu Pro Pro Glu Glu Val Cys His
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 Gln Glu Pro Ala Leu Arg Gly Glu Met Ala Glu Gly Met Pro Pro Met
 85 90 95
 Gln Ala Gln Glu Trp Asp Met Asp Ala Arg Arg Pro Met Pro Phe Gln
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 Phe Pro Pro Phe Pro Asp Arg Ala Pro Val Phe Pro Asp Arg Met Met
 115 120 125
 Arg Glu Pro Gln Leu Pro Thr Ala Glu Ile Ser Leu Trp Thr Val Val
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 Ala Ala Ile Gln Ala Met Glu Arg Lys Ile Glu Ser Gln Ala Ala His

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Leu	Leu	Ser	Leu	Glu	Gly	Gln	Thr	Gly	Met	Ala	Glu	Lys	Lys	Leu	Ala
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Asp	Cys	Glu	Lys	Thr	Ala	Val	Glu	Phe	Gly	Asn	Gln	Leu	Glu	Gly	Lys
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Trp	Ala	Val	Leu	Gly	Thr	Leu	Leu	Gln	Glu	Tyr	Gly	Leu	Leu	Gln	Arg
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Arg	Leu	Glu	Asn	Val	Glu	Asn	Leu	Leu	Arg	Asn	Arg	Asn	Phe	Trp	Val
		210		215		220									
Leu	Arg	Leu	Pro	Pro	Gly	Ser	Lys	Gly	Glu	Ala	Pro	Lys	Val	Pro	Val
		225		230		235									
Thr	Phe	Val	Asp	Ile	Ala	Val	Tyr	Phe	Ser	Glu	Asp	Glu	Trp	Lys	Asn
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Leu	Asp	Glu	Trp	Gln	Lys	Glu	Leu	Tyr	Asn	Asn	Leu	Val	Lys	Glu	Asn
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Glu	Asp	Thr	Leu	Cys	Val	Arg	Gly	Gln	Arg	Gly	Leu	Glu	Glu	Arg	Ala
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Ile	Pro	Thr	Glu	Ser	Ile	Thr	Val	Asp	Ser	Pro	Ile	Ser	Ala	Gln	Asp
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Gln	Asp	Leu	Ala	Asp	Arg	Asp	Ile	Pro	Thr	Asp	Pro	Asn	Ser	Glu	Ser
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Leu	Ile	Ser	Ala	His	Asp	Ile	Leu	Ser	Trp	Ile	Lys	Gln	Glu	Glu	Gln
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Pro	Tyr	Pro	Trp	Gly	Pro	Arg	Asp	Ser	Met	Asp	Gly	Glu	Leu	Gly	Leu
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Ala	Pro	Pro	Gln	Pro	Gln	Pro	Gln	Pro	Gln	Pro	Pro	Gln	Pro	Gln	Leu
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Tyr	Ser	Cys	Pro	Glu	Cys	Gly	Lys	Ser	Phe	Gly	Val	Arg	Lys	Ser	Leu
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Ile	Ile	His	His	Arg	Ser	His	Thr	Lys	Glu	Arg	Pro	Tyr	Glu	Cys	Ala

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<211> 519

<212> DNA

<213> Homo sapiens

<400> 4061

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<212> PRT

<213> Homo sapiens

<400> 4062

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 Glu Leu Ala Ala Ile Ile Pro Leu Val Val Lys Ser Val Lys Cys Ala

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Met Val Gly Leu His Gly Arg Arg Asn Ser Gly Lys Leu Met Ser Leu
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Asp Lys Ala Pro Leu Arg Gln Leu Leu Asp Ala Thr Ile Gly Ala Tyr
      85      90      95
Ile Asn Thr Thr His Ser Arg Leu Thr His Ile Ser Pro Arg His Tyr
      100      105      110
Ser Glu Phe Ile Glu Phe Leu Ser Lys Ala Arg Glu Thr Phe Leu Met
      115      120      125
Ala His Asp Gly His Ile Gln Phe Thr Gln Phe Ile Asp Asn Leu Lys
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<211> 4137

<212> DNA

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<400> 4063

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4137

<210> 4064
 <211> 818
 <212> PRT
 <213> Homo sapiens

<400> 4064

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Met Cys Cys Pro Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His
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Asn His Asn Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp
      50           55           60
Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
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Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
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Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
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Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
      115          120          125
His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn
      130          135          140
Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg
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Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
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Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile Arg Val Pro
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Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
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Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly
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Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys
      355          360          365
Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Glu Asn Phe Leu Pro Lys

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Cys Glu Gln Leu Gly Gln Lys Trp Gln Cys Val Glu Asp Ala Thr Gly		400
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Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys Leu Ser Leu Ala Gly Arg		
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Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg		
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His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr Lys Arg		
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Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg		
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Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr		
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Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys		
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Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro		
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Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn		
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Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys		
755	760	765
Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly		
770	775	780
Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu		
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 Pro Phe Ser Tyr Thr Tyr Arg Arg Pro Leu Arg Thr His Tyr Gly Tyr
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 Ile Asn Val Lys Thr Gln Glu Pro Leu Gln Leu Asp Cys Asp Leu Cys
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 Ala Ile Val Ser Asn Ser Gly Gln Met Val Gly Gln Lys Val Gly Asn
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 Glu Ile Asp Arg Ser Ser Cys Ile Trp Arg Met Asn Asn Ala Pro Thr

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115	120	125			
Ser His Thr	Ser Val Pro Leu Leu Leu	Lys Asn Pro Asp Tyr Phe Phe			
130	135	140			
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Met Arg Lys	Asp Gly Asn Gly Ile Val Tyr Asn Met	Leu Lys Lys Thr			
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Val Gly Ile	Tyr Pro Asn Ala Gln Ile Tyr Val Thr Thr	Glu Lys Arg			
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 960

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<210> 4068
 <211> 521
 <212> PRT
 <213> Homo sapiens

<400> 4068
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 35 40 45
 Leu Pro Phe Gly Lys Val Thr Asn Leu Leu Met Leu Lys Gly Lys Ser
 50 55 60
 Gln Ala Phe Leu Glu Met Ala Ser Glu Glu Ala Ala Val Thr Met Val
 65 70 75 80
 Asn Tyr Tyr Thr Pro Ile Thr Pro His Leu Arg Ser Gln Pro Val Tyr
 85 90 95
 Ile Gln Tyr Ser Asn His Arg Glu Leu Lys Thr Asp Asn Leu Pro Asn
 100 105 110
 Gln Ala Arg Ala Gln Ala Ala Leu Gln Ala Val Ser Ala Val Gln Ser
 115 120 125
 Gly Ser Leu Ala Leu Ser Gly Gly Pro Ser Asn Glu Gly Thr Val Leu
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 Pro Gly Gln Ser Pro Val Leu Arg Ile Ile Ile Glu Asn Leu Phe Tyr

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145          150          155          160
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          165          170          175
Val Leu Lys Ile Ile Thr Phe Thr Lys Asn Asn Gln Phe Gln Ala Leu
          180          185          190
Leu Gln Tyr Ala Asp Pro Val Asn Ala His Tyr Ala Lys Met Ala Leu
          195          200          205
Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
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Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
225          230          235          240
Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu
          245          250          255
Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser
          260          265          270
Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
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Ala Thr Gly Leu Ser Val Pro Ala Val Pro Gly Ala Leu Gly Pro Leu
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Thr Ile Thr Ser Ser Ala Val Thr Gly Arg Met Ala Ile Pro Gly Ala
305          310          315          320
Ser Gly Ile Pro Gly Asn Ser Val Leu Leu Val Thr Asn Leu Asn Pro
          325          330          335
Asp Leu Ile Thr Pro His Gly Leu Phe Ile Leu Phe Gly Val Tyr Gly
          340          345          350
Asp Val His Arg Val Lys Ile Met Phe Asn Lys Lys Glu Asn Ala Leu
          355          360          365
Val Gln Met Ala Asp Ala Asn Gln Ala Gln Leu Ala Met Asn His Leu
          370          375          380
Ser Gly Gln Arg Leu Tyr Gly Lys Val Leu Arg Ala Thr Leu Ser Lys
385          390          395          400
His Gln Ala Val Gln Leu Pro Arg Glu Gly Gln Glu Asp Gln Gly Leu
          405          410          415
Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly
          420          425          430
Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
          435          440          445
Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe
          450          455          460
Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp
465          470          475          480
Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln
          485          490          495
Ala Leu Ile Glu Leu His Asn His Asp Leu Gly Glu Asn His His Leu
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Arg Val Ser Phe Ser Lys Ser Thr Ile
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<210> 4069

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4069

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 180
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<210> 4070
 <211> 113
 <212> PRT
 <213> Homo sapiens

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 Leu Tyr Thr Ile Phe Ile Val Ala Thr Lys Ile Thr Met Met Thr Thr
 35 40 45
 Gln Thr Ser Thr Met Thr Phe Ala Pro Phe Glu Asp Thr Leu Ser Trp
 50 55 60
 Met Leu Phe Gly Trp Gln Gln Pro Phe Ser Ser Cys Glu Lys Lys Ser
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 85 90 95
 Val Asp Val Ala Ser Asp Asn Val Lys Lys Lys His Thr Lys Lys Asn
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 Glu

<210> 4071
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 4071

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<210> 4072
 <211> 175
 <212> PRT
 <213> Homo sapiens

<400> 4072
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 Leu Ser Gln Ser Val Val Leu Arg His His Trp Ile Leu Pro Phe Val
 35 40 45
 Gln Ala Leu Lys Ala Arg Met Thr Ser Phe His Arg Phe Phe Phe Thr
 50 55 60
 Ala Asn Gln Val Lys Ile Tyr Thr Asn Gln Glu Lys Thr Arg Thr Phe
 65 70 75 80
 Ile Gly Leu Glu Val Thr Ser Gly His Ala Gln Phe Leu Asp Leu Val
 85 90 95
 Ser Glu Val Asp Arg Val Met Glu Glu Phe Asn Leu Thr Thr Phe Tyr
 100 105 110
 Gln Asp Pro Ser Phe His Leu Ser Leu Ala Trp Cys Val Gly Asp Ala
 115 120 125
 Arg Leu Gln Leu Glu Gly Gln Cys Leu Gln Glu Leu Gln Ala Ile Val
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 Asp Gly Phe Glu Asp Ala Glu Val Leu Leu Arg Val His Thr Glu Gln
 145 150 155 160
 Val Arg Cys Lys Ser Gly Asn Lys Phe Phe Ser Met Pro Leu Lys
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<210> 4073
 <211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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 1860
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 1864

<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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 Asn Pro Val Asp Ala Ile Tyr Gln Pro Ser Pro Leu Glu Pro Val Ile
 35 40 45
 Ser Thr Met Pro Ser Gln Thr Val Leu Pro Pro Glu Pro Val Gln Leu
 50 55 60
 Cys Lys Ser Glu Gln Arg Pro Ser Ser Leu Pro Val Gly Pro Val Leu
 65 70 75 80
 Ala Thr Leu Gly His His Gln Thr Pro Thr Pro Asn Ser Thr Gly Ser
 85 90 95
 Gly His Ser Pro Pro Ser Ser Ser Leu Thr Ser Pro Ser His Val Asn
 100 105 110
 Leu Ser Pro Asn Thr Val Pro Glu Phe Ser Tyr Ser Ser Ser Glu Asp
 115 120 125
 Glu Phe Tyr Asp Ala Asp Glu Phe His Gln Ser Gly Ser Ser Pro Lys
 130 135 140
 Arg Leu Ile Asp Ser Ser Gly Ser Ala Ser Val Leu Thr His Ser Ser
 145 150 155 160
 Ser Gly Asn Ser Leu Lys Arg Pro Asp Thr Thr Glu Ser Leu Asn Ser
 165 170 175
 Ser Leu Ser Asn Gly Thr Ser Asp Ala Asp Leu Phe Asp Ser His Asp
 180 185 190
 Asp Arg Asp Asp Ala Glu Ala Gly Ser Val Glu Glu His Lys Ser
 195 200 205
 Val Ile Met His Leu Leu Ser Gln Val Arg Leu Gly Met Asp Leu Thr
 210 215 220
 Lys Val Val Leu Pro Thr Phe Ile Leu Glu Arg Arg Ser Leu Leu Glu
 225 230 235 240
 Met Tyr Ala Asp Phe Phe Ala His Pro Asp Leu Phe Val Ser Ile Ser
 245 250 255
 Asp Gln Lys Asp Pro Lys Asp Arg Met Val Gln Val Val Lys Trp Tyr

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Leu Ser Ala Phe His Ala Gly Arg Lys Gly Ser Val Ala Lys Lys Pro
      275      280      285
Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
      290      295      300
Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
      305      310      315      320
Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
      325      330      335
His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
      340      345      350
Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
      355      360      365
Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
      370      375      380
Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile
      385      390      395      400
Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
      405      410      415
Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe
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Tyr Gly Gly Lys Lys His Arg Ile Thr Ala Glu Ile Phe Ser Pro Asn
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<210> 4075

<211> 2492

<212> DNA

<213> Homo sapiens

<400> 4075

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<210> 4076
 <211> 410
 <212> PRT
 <213> Homo sapiens

<400> 4076

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 35 40 45
 Val Asn Leu Asp Gln Trp Thr Gln Glu Gln Ile Gln Cys Met Gln Glu
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 Met Gly Asn Gly Lys Ala Asn Arg Leu Tyr Glu Ala Tyr Leu Pro Glu
 65 70 75 80
 Thr Phe Arg Arg Pro Gln Ile Asp Pro Ala Val Glu Gly Phe Ile Arg
 85 90 95
 Asp Lys Tyr Glu Lys Lys Lys Tyr Met Asp Arg Ser Leu Asp Ile Asn
 100 105 110
 Ala Phe Arg Lys Glu Lys Asp Asp Lys Trp Lys Arg Gly Ser Glu Pro
 115 120 125
 Val Pro Glu Lys Lys Leu Glu Pro Val Val Phe Glu Lys Val Lys Met
 130 135 140
 Pro Gln Lys Lys Glu Asp Pro Gln Leu Pro Arg Lys Ser Ser Pro Lys
 145 150 155 160
 Ser Thr Ala Pro Val Met Asp Leu Leu Gly Leu Asp Ala Pro Val Ala
 165 170 175
 Cys Ser Ile Ala Asn Ser Lys Thr Ser Asn Thr Leu Glu Lys Asp Leu
 180 185 190
 Asp Leu Leu Ala Ser Val Pro Ser Pro Ser Ser Gly Ser Arg Lys
 195 200 205
 Val Val Gly Ser Met Pro Thr Ala Gly Ser Ala Gly Ser Val Pro Glu
 210 215 220
 Asn Leu Asn Leu Phe Pro Glu Pro Gly Ser Lys Ser Glu Glu Ile Gly
 225 230 235 240
 Lys Lys Gln Leu Ser Lys Asp Ser Ile Leu Ser Leu Tyr Gly Ser Gln
 245 250 255
 Thr Pro Gln Met Pro Thr Gln Ala Met Phe Met Ala Pro Ala Gln Met
 260 265 270
 Ala Tyr Pro Thr Ala Tyr Pro Ser Phe Pro Gly Val Thr Pro Pro Asn
 275 280 285
 Ser Ile Met Gly Ser Met Met Pro Pro Pro Val Gly Met Val Ala Gln
 290 295 300
 Pro Gly Ala Ser Gly Met Val Ala Pro Met Ala Met Pro Ala Gly Tyr

305 310 315 320
 Met Gly Gly Met Gln Ala Ser Met Met Gly Val Pro Asn Gly Met Met
 325 330 335
 Thr Thr Gln Gln Ala Gly Tyr Met Ala Gly Met Ala Ala Met Pro Gln
 340 345 350
 Thr Val Tyr Gly Val Gln Pro Ala Gln Gln Leu Gln Trp Asn Leu Thr
 355 360 365
 Gln Met Thr Gln Gln Met Ala Gly Met Asn Phe Tyr Gly Ala Asn Gly
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<210> 4077

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4077

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<210> 4078

<211> 194

<212> PRT

<213> Homo sapiens

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	35		40		45										
Ile	Arg	Lys	Leu	Arg	Gln	Asp	Ile	Leu	Leu	Met	Lys	Pro	Tyr	Phe	Ile
	50		55		60										
Thr	Cys	Arg	Glu	Ala	Met	Glu	Ala	Arg	Leu	Leu	Leu	Gln	Leu	Gln	Asp
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Arg	Gln	His	Phe	Val	Glu	Asn	Asp	Glu	Met	Tyr	Ser	Val	Gln	Asp	Leu
	85		90		95										
Leu	Asp	Val	His	Ala	Gly	Arg	Leu	Gly	Cys	Ser	Leu	Thr	Glu	Ile	His
	100		105		110										
Thr	Leu	Phe	Ala	Lys	His	Ile	Lys	Leu	Asp	Cys	Glu	Arg	Cys	Gln	Ala
	115		120		125										
Lys	Gly	Phe	Val	Cys	Glu	Leu	Cys	Arg	Glu	Gly	Asp	Val	Leu	Phe	Pro
	130		135		140										
Phe	Asp	Ser	His	Thr	Ser	Val	Cys	Ala	Asp	Cys	Ser	Ala	Val	Phe	His
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Arg	Asp	Cys	Tyr	Tyr	Asp	Asn	Ser	Thr	Thr	Cys	Pro	Lys	Cys	Ala	Arg
	165		170		175										
Leu	Ser	Leu	Arg	Lys	Gln	Ser	Leu	Phe	Gln	Glu	Pro	Gly	Pro	Asp	Val
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<210> 4079

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4079

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780

nta

783

<210> 4080

<211> 101

<212> PRT

<213> Homo sapiens

<400> 4080

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25

30

Leu Thr Pro Ser Val Cys Leu Pro Ser Lys Leu His Cys Pro Asn Arg

35

40

45

Glu Ala Leu His Ala Gln Pro Gly Glu Gln Gly Trp Met Gly Leu Lys

50

55

60

Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln

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70

75

80

Ser Trp Gly Lys His Glu Gly Cys Pro Ser Thr Glu Val Asn Pro Gly

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90

95

His Ala Arg Thr Lys

100

<210> 4081

<211> 645

<212> DNA

<213> Homo sapiens

<400> 4081

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120

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180

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240

agtgtgattg ccaacttcat ccctttctct gatcacaacc agagtccacg gaacatgtac

300

caatgccaga tgggtaagca aactatgggc tttccacttc tcacttatca agaccgatcg

360

gataacaaac tgtatcgtct tcagactcct cagagtcctt tgggtgagacc ctccatgtat

420

gattattatg acatggataa ctatccaatt gggaccaatg ccatcggtgc tgtgatttct

480

tacactggct atgatatgga agatgccatg attgtgaata aggcctcttg ggaacgaggc

540

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<210> 4082
 <211> 215
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Thr Met Glu Gln Ile Phe Met Asn Val Ala Ile Phe Glu Asp Glu Val
 50 55 60
 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
 65 70 75 80
 Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro
 85 90 95
 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
 100 105 110
 Leu Leu Thr Tyr Gln Asp Arg Ser Asp Asn Lys Leu Tyr Arg Leu Gln
 115 120 125
 Thr Pro Gln Ser Pro Leu Val Arg Pro Ser Met Tyr Asp Tyr Tyr Asp
 130 135 140
 Met Asp Asn Tyr Pro Ile Gly Thr Asn Ala Ile Val Ala Val Ile Ser
 145 150 155 160
 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
 165 170 175
 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
 180 185 190
 Asp Leu Ser Glu Lys Ile Lys Gln Gly Asp Ser Ser Leu Val Phe Gly
 195 200 205
 Ile Lys Pro Gly Asp Pro Arg
 210 215

<210> 4083
 <211> 2983
 <212> DNA
 <213> Homo sapiens

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 240
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 360

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420
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480
gttaatatct ctaaactctaa aggcaggcag caggtttctc tgagaacaca tgcaacctca
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720
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780
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<210> 4084

<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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 Val Tyr Gly Leu Asn Phe Ala Ser Lys Glu Glu Ala Thr Thr Phe Ser
 35 40 45
 Asn Ala Met Leu Phe Ala Leu Asn Ile Met Asn Ser Gln Glu Gly Gly
 50 55 60
 Pro Ser Ser Gln Arg Gln Val Gln Asn Gly Pro Ser Pro Asp Glu Met
 65 70 75 80
 Asp Ile Gln Arg Arg Gln Val Met Glu Gln His Gln Gln Gln Arg Gln
 85 90 95
 Glu Ser Leu Glu Arg Arg Thr Ser Ala Thr Gly Pro Ile Leu Pro Pro

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Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Ala	Gly	Gly	Ala	Gln	Gly	Ser	Ser				
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His	Asp	Glu	Ser	Ser	Met	Ser	Gly	Leu	Ala	Ala	Ala	Ile	Ala	Gly	Ala				
165							170					175							
Lys	Leu	Arg	Arg	Val	Gln	Arg	Pro	Glu	Asp	Ala	Ser	Gly	Gly	Ser	Ser				
180							185					190							
Pro	Ser	Gly	Thr	Ser	Lys	Ser	Asp	Ala	Asn	Arg	Ala	Ser	Ser	Gly	Gly				
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Arg	Lys	Ala	Ala	Ser	Gln	Ser	Asp	Lys	Pro	Ala	Glu	Lys	Lys	Glu	Asp				
225							230					235							
Glu	Ser	Gln	Met	Glu	Asp	Pro	Ser	Thr	Ser	Pro	Ser	Pro	Gly	Thr	Arg				
245							250					255							
Ala	Ala	Ser	Gln	Pro	Pro	Asn	Ser	Ser	Glu	Ala	Gly	Arg	Lys	Pro	Trp				
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Thr	Pro	Ser	Val	Ala	Lys	Ser	Pro	Glu	Ala	Lys	Ser	Pro	Leu	Gln	Ser				
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Gln	Pro	His	Ser	Arg	Met	Lys	Pro	Ala	Gly	Ser	Val	Asn	Asp	Met	Ala				
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Leu	Asp	Ala	Phe	Asp	Leu	Asp	Arg	Met	Lys	Gln	Glu	Ile	Leu	Glu	Glu				
325							330					335							
Val	Val	Arg	Glu	Leu	His	Lys	Val	Lys	Glu	Glu	Ile	Ile	Asp	Ala	Ile				
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<210> 4085
<211> 2673
<212> DNA
<213> Homo sapiens
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420

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<210> 4086
 <211> 789
 <212> PRT
 <213> Homo sapiens

<400> 4086
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 Phe Leu Leu Val Phe Ala Ile Ala Ala Ala Tyr Val Trp Ile Glu
 35 40 45
 Gly Thr Lys Asp Pro Ser Arg Asn Arg Tyr Lys Leu Phe Leu Glu Cys
 50 55 60
 Thr Leu Ile Leu Thr Ser Val Val Pro Pro Glu Leu Pro Ile Glu Leu
 65 70 75 80
 Ser Leu Ala Val Asn Thr Ser Leu Ile Ala Leu Ala Lys Leu Tyr Met
 85 90 95
 Tyr Cys Thr Glu Pro Phe Arg Ile Pro Phe Ala Gly Lys Val Glu Val
 100 105 110
 Cys Cys Phe Asp Lys Thr Gly Thr Leu Thr Ser Asp Ser Leu Val Val
 115 120 125
 Arg Gly Val Ala Gly Leu Arg Asp Gly Lys Glu Val Thr Pro Val Ser
 130 135 140
 Ser Ile Pro Val Glu Thr His Arg Ala Leu Ala Ser Cys His Ser Leu
 145 150 155 160
 Met Gln Leu Asp Asp Gly Thr Leu Val Gly Asp Pro Leu Glu Lys Ala
 165 170 175
 Met Leu Thr Ala Val Asp Trp Thr Leu Thr Lys Asp Glu Lys Val Phe
 180 185 190
 Pro Arg Ser Ile Lys Thr Gln Gly Leu Lys Ile His Gln Arg Phe His

195	200	205
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210	215	220
Leu Gly Ser Thr Asp Leu Cys Tyr Ile Ala Ala Val Lys Gly Ala Pro		
225	230	235
Glu Thr Leu His Ser Met Phe Ser Gln Cys Pro Pro Asp Tyr His His		
245	250	255
Ile His Thr Glu Ile Ser Arg Glu Gly Ala Arg Val Leu Ala Leu Gly		
260	265	270
Tyr Lys Glu Leu Gly His Leu Thr His Gln Gln Ala Arg Glu Val Lys		
275	280	285
Arg Glu Ala Leu Glu Cys Ser Leu Lys Phe Val Gly Phe Ile Val Val		
290	295	300
Ser Cys Pro Leu Lys Ala Asp Ser Lys Ala Val Ile Arg Glu Ile Gln		
305	310	315
Asn Ala Ser His Arg Val Val Met Ile Thr Gly Asp Asn Pro Leu Thr		
325	330	335
Ala Cys His Val Ala Gln Glu Leu His Phe Ile Glu Lys Ala His Thr		
340	345	350
Leu Ile Leu Gln Pro Pro Ser Glu Lys Gly Arg Gln Cys Glu Trp Arg		
355	360	365
Ser Ile Asp Gly Ser Ile Val Leu Pro Leu Xaa Pro Gly Ala Pro Gln		
370	375	380
Arg His Trp Pro Trp Ser Thr His Xaa Cys Leu Thr Gly Asp Gly Leu		
385	390	395
Ala His Leu Gln Ala Thr Asp Pro Gln Gln Leu Leu Arg Leu Ile Pro		
405	410	415
His Val Gln Val Phe Ala Arg Val Ala Pro Lys Gln Lys Glu Phe Val		
420	425	430
Ile Thr Ser Leu Lys Glu Leu Gly Tyr Val Thr Leu Met Cys Gly Asp		
435	440	445
Gly Thr Asn Asp Val Gly Ala Leu Lys His Ala Asp Val Gly Val Ala		
450	455	460
Leu Leu Ala Asn Ala Pro Glu Arg Val Val Glu Arg Arg Arg Arg Pro		
465	470	475
Arg Asp Ser Pro Thr Leu Ser Asn Ser Gly Ile Arg Ala Thr Ser Arg		
485	490	495
Thr Ala Lys Gln Arg Ser Gly Leu Pro Pro Ser Glu Glu Gln Pro Thr		
500	505	510
Ser Gln Arg Asp Arg Leu Ser Gln Val Leu Arg Asp Leu Glu Asp Glu		
515	520	525
Ser Thr Pro Ile Val Lys Leu Gly Asp Ala Ser Ile Ala Ala Pro Phe		
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Thr Ser Lys Leu Ser Ser Ile Gln Cys Ile Cys His Val Ile Lys Gln		
545	550	555
Gly Arg Cys Thr Leu Val Thr Thr Leu Gln Met Phe Lys Ile Leu Ala		
565	570	575
Leu Asn Ala Leu Ile Leu Ala Tyr Ser Gln Ser Val Leu Tyr Leu Glu		
580	585	590
Gly Val Lys Phe Ser Asp Phe Gln Ala Thr Leu Gln Gly Leu Leu Leu		
595	600	605
Ala Gly Cys Phe Leu Phe Ile Ser Arg Ser Lys Pro Leu Lys Thr Leu		
610	615	620
Ser Arg Glu Arg Pro Leu Pro Asn Ile Phe Asn Leu Tyr Thr Ile Leu		

625					630					635				640
Thr	Val	Met	Leu	Gln	Phe	Phe	Val	His	Phe	Leu	Ser	Leu	Val	Tyr
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Tyr	Arg	Glu	Ala	Gln	Ala	Arg	Ser	Pro	Xaa	Arg	Xaa	Gln	Glu	Gln
					660					665				670
Val	Asp	Leu	Tyr	Lys	Glu	Phe	Glu	Pro	Ser	Leu	Val	Asn	Ser	Thr
					675					680				685
Tyr	Ile	Met	Ala	Met	Ala	Met	Gln	Met	Ala	Thr	Phe	Ala	Ile	Asn
														700
Lys	Gly	Pro	Pro	Phe	Met	Glu	Ser	Leu	Pro	Glu	Asn	Lys	Pro	Leu
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Trp	Ser	Leu	Ala	Val	Ser	Leu	Leu	Ala	Ile	Ile	Gly	Leu	Leu	Gly
														735
Ser	Ser	Pro	Asp	Phe	Asn	Ser	Gln	Phe	Gly	Leu	Val	Asp	Ile	Pro
														750
Glu	Phe	Lys	Leu	Val	Ile	Ala	Gln	Val	Leu	Leu	Leu	Asp	Phe	Cys
														765
Ala	Leu	Leu	Ala	Asp	Arg	Val	Leu	Gln	Phe	Phe	Leu	Gly	Thr	Pro
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Leu	Lys	Val	Pro	Ser										
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<210> 4087

<211> 959

<212> DNA

<213> Homo sapiens

<400> 4087

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780

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 <213> Homo sapiens

<400> 4088
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 Ala Val Ala Arg Val Arg Ser Ala Gly Pro Ser Cys Gln Asn Lys Gly
 35 40 45
 Asp Leu Val Met Glu Ala Leu Leu Glu Gly Ile Gln Asn Arg Gly His
 50 55 60
 Gly Gly Gly Phe Leu Thr Ser Cys Glu Ala Glu Leu Gln Glu Leu Met
 65 70 75 80
 Lys Gln Ile Asp Ile Met Val Ala His Lys Lys Ser Glu Trp Glu Gly
 85 90 95
 Arg Thr His Ala Leu Glu Thr Cys Leu Lys Ile Arg Glu Gln Glu Leu
 100 105 110
 Lys Ser Leu Arg Ser Gln Leu Asp Val Thr His Lys Glu Val Gly Met
 115 120 125
 Leu His Gln Gln Val Glu Glu His Glu Lys Ile Lys Gln Glu Met Thr
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 Met Glu Tyr Lys Gln Glu Leu Lys Lys Leu His Glu Glu Leu Cys Ile
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 Leu Lys Arg Ser Tyr Glu Lys Leu Gln Lys Lys Gln Met Arg Glu Phe
 165 170 175
 Arg Gly Asn Thr Lys Asn His Arg Glu Asp Arg Ser Glu Ile Glu Arg
 180 185 190
 Leu Thr Ala Lys Ile Glu Glu Phe Arg Gln Lys Ser Leu Asp Trp Glu
 195 200 205
 Lys Gln Arg Leu Ile Tyr Gln Gln Gln Val Ser Ser Leu Glu Ala Gln
 210 215 220
 Arg Lys Ala Leu Ala Glu Gln Ser Glu Ile Ile Gln Ala Gln Leu Val
 225 230 235 240
 Asn Arg Lys Gln Lys Leu Glu Ser Val Glu Leu Ser Ser Gln Ser Glu
 245 250 255
 Ile Gln His Leu Ser Ser Lys Leu Glu Arg Ala Asn Asp Thr Ile Cys
 260 265 270
 Ala Asn Glu Leu Glu Ile Glu Arg Leu Thr Met Arg Val Asn Asp Leu
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<210> 4089
 <211> 511
 <212> DNA
 <213> Homo sapiens

<400> 4089
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 <211> 109
 <212> PRT
 <213> Homo sapiens

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 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser
 35 40 45
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile
 50 55 60
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu
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 Ser Pro Cys Ser Glu Asp Pro Ser His Leu Val Thr Ala Pro Trp Ala
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 Val Tyr Phe His Cys Leu Trp Lys Ile Glu Tyr Thr Cys
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<210> 4091
 <211> 1526
 <212> DNA
 <213> Homo sapiens

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240
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480
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<210> 4092

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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 20 25 30
 Arg Gly Gly Val Arg Gly Ala Arg Gln Gly Arg Ala Pro Gly Ser Ser
 35 40 45
 Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
 50 55 60
 Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
 65 70 75 80
 Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
 85 90 95
 Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
 100 105 110
 Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
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 Ser Asn
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<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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 240
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 720

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 1020
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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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			20					25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40					45			
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
	50					55					60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65				70					75					80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85					90					95		
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
	115					120					125				
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
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Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser

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145          150          155          160
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          165          170          175
Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser
          180          185          190
Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr
          195          200          205
Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys
          210          215          220
Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met
225          230          235          240
Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn
          245          250          255
Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala
          260          265          270
Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp
          275          280          285
Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met
          290          295          300
Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser
305          310          315          320
Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe
          325          330          335
Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr
          340          345          350
Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile
          355          360          365
Gln Ala Tyr Leu Asp Asn Val Phe Asp Val Gly Ala Leu Leu Glu Asp
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Ala Glu Thr Lys Asn Ala Ala
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<210> 4095
 <211> 253
 <212> DNA
 <213> Homo sapiens

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 253

<210> 4096
 <211> 83
 <212> PRT
 <213> Homo sapiens

<400> 4096

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 35 40 45
 Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
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 Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
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<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

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			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
			35				40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
			50				55				60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Thr	Lys	Lys	Lys	
65					70				75					80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90						95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
			115				120						125		
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
			130				135				140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
145					150					155				160	
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165						170					175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
			180					185					190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
			195				200						205		
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
			210				215						220		
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225					230					235				240	
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
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Lys Cys

<210> 4099
 <211> 511
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 300
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 360
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 511

<210> 4100
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4100
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 20 25 30
 Gly Phe Asp Leu Leu His Leu Ile Gln Gln Lys Asp Thr Lys Gln His
 35 40 45
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
 50 55 60
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
 65 70 75 80
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
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 Pro Glu Phe His
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<210> 4101
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 4101

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<210> 4102

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

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Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
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Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
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<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
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Asp	Leu	Ser	Ser	Glu	Ser	Ser	Ile	Lys	Lys	Lys	Ser	Gln	Glu	Glu	Arg
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Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

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Ser	Arg	Lys	Lys	Pro	Ser	Gly	Ala	Leu	Gly	Ser	Glu	Ser	Tyr	Lys	Ser
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Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Gly	Tyr
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Met	Glu	Val	Ser	Leu	Asp	Ser	Leu	Asp	Leu	Arg	Val	Lys	Gly	Ile	Leu
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Ser	Ser	Gln	Ala	Glu	Gly	Leu	Ala	Asn	Gly	Pro	Asp	Val	Leu	Glu	Thr
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Asp	Gly	Leu	Gln	Glu	Val	Pro	Leu	Cys	Ser	Cys	Arg	Met	Glu	Thr	Pro
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Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala	Thr
				165					170					175	
Glu	Ser	Val	Asp	His	Glu	Leu	Gly	Arg	Cys	Thr	Asn	Ser	Val	Val	Lys
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Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val	Leu	Cys
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				245				250						255	
Ala	Ser	Tyr	Cys	Pro	His	Cys	Gly	Glu	Glu	Ser	Ser	Lys	Ala	Lys	Glu
				260				265						270	
Val	Thr	Ile	Ala	Lys	Ala	Asp	Thr	Thr	Ser	Thr	Val	Thr	Pro	Val	Pro
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Gly	Gln	Glu	Lys	Gly	Ser	Ala	Xaa	Gly	Gly	Arg	Ala	Asp	Thr	Thr	Thr
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Gly	Ser	Ala	Xaa	Pro	Gly	His	His	Ser	Arg	Arg	Thr	Thr	Ser	Cys	Arg
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Val	Gln	Pro	Pro	Thr	Xaa	Pro	Glu	Gly	Phe	Asp	Pro	Thr	Gly	Pro	Ala
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Gly	Leu	Gly	Arg	Pro	Thr	Pro	Gly	Leu	Ser	Gln	Gly	Pro	Gly	Lys	Glu
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Thr	Leu	Glu	Ser	Ala	Leu	Ile	Ala	Leu	Asp	Ser	Glu	Lys	Pro	Lys	Lys
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Leu	Arg	Phe	His	Pro	Lys	Gln	Leu	Tyr	Phe	Ser	Ala	Arg	Gln	Gly	Glu
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Leu	Gln	Lys	Val	Leu	Leu	Met	Leu	Val	Asp	Gly	Ile	Asp	Pro	Asn	Phe
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Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Ala	Glu
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Ala	Gly	His	Val	Asp	Ile	Cys	His	Met	Leu	Val	Gln	Ala	Gly	Ala	Asn
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Ile	Asp	Thr	Cys	Ser	Glu	Asp	Gln	Arg	Thr	Pro	Leu	Met	Glu	Ala	Ala
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Glu	Asn	Asn	His	Leu	Glu	Ala	Val	Lys	Tyr	Leu	Ile	Lys	Ala	Gly	Ala
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Leu	Val	Asp	Pro	Lys	Asp	Ala	Glu	Gly	Ser	Thr	Cys	Leu	His	Leu	Ala
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Ala	Lys	Lys	Gly	His	Tyr	Glu	Val	Val	Gln	Tyr	Leu	Leu	Ser	Asn	Gly
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Arg	Met	Asp	Val	Asn	Cys	Gln	Asp	Asp	Gly	Gly	Trp	Thr	Pro	Met	Ile

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Trp	Ala	Thr	Glu	Tyr	Lys	His	Val	Asp	Leu	Val	Lys	Leu	Leu	Leu	Ser						
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Lys	Gly	Ser	Asp	Ile	Asn	Ile	Arg	Asp	Asn	Glu	Glu	Asn	Ile	Cys	Leu						
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Ala	Ala	Lys	Cys	Asp	Leu	His	Ala	Val	Asn	Ile	His	Gly	Asp	Ser	Pro						
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Leu	His	Ile	Ala	Ala	Arg	Glu	Asn	Arg	Tyr	Asp	Cys	Val	Val	Leu	Phe						
			580					585					590								
Leu	Ser	Arg	Asp	Ser	Asp	Val	Thr	Leu	Lys	Asn	Lys	Glu	Gly	Glu	Thr						
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Pro	Leu	Gln	Cys	Ala	Ser	Leu	Asn	Ser	Gln	Val	Trp	Ser	Ala	Leu	Gln						
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Lys	Tyr	Val	Ser	Gln	Asn	Cys	Val	Thr	Ser	Pro	Met	Asn	Ile	Asp	Arg						
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Val	Val	Gln	Asn	Gly	Leu	Arg	Ala	Arg	Leu	Gln	Leu	Tyr	Arg	Thr	Arg						
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Asp	Met	Gly	Trp	Gly	Val	Arg	Ser	Leu	Gln	Asp	Ile	Pro	Pro	Gly	Thr						
	770					775					780										
Phe	Val	Cys	Glu	Tyr	Val	Gly	Glu	Leu	Ile	Ser	Asp	Ser	Glu	Ala	Asp						
785					790					795					800						
Val	Arg	Glu	Glu	Asp	Ser	Tyr	Leu	Phe	Asp	Leu	Asp	Asn	Lys	Asp	Gly						
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Glu	Val	Tyr	Cys	Ile	Asp	Ala	Arg	Phe	Tyr	Gly	Asn	Val	Ser	Arg	Phe						
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 <212> DNA
 <213> Homo sapiens

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<210> 4106
 <211> 186
 <212> PRT
 <213> Homo sapiens

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 Trp Glu Val Arg Tyr Glu Pro Asp Ser Lys Ala Phe Gly Val Gly Val

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65	70	75
Ser Trp Cys Leu His Ser Thr Ile Gly Cys Arg Ser Ala Ser Arg Lys		80
	85	90
His Ala Asn Lys Val Lys Val Leu Asp Ala Pro Val Pro Asp Cys Leu		95
	100	105
Gly Val His Cys Asp Phe His Gln Gly Leu Leu Ser Phe Tyr Asn Ala		110
	115	120
Arg Thr Lys Gln Val Leu His Thr Phe Lys Thr Arg Phe Thr Gln Pro		125
	130	135
Leu Leu Pro Ala Phe Thr Val Trp Cys Gly Ser Phe Gln Val Thr Thr		140
145	150	155
Gly Leu Gln Val Pro Ser Ala Val Arg Cys Leu Gln Lys Arg Gly Ser		160
	165	170
Ala Thr Ser Ser Ser Asn Thr Ser Leu Thr		175
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<210> 4107

<211> 1442

<212> DNA

<213> Homo sapiens

<400> 4107

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<210> 4108
 <211> 273
 <212> PRT
 <213> Homo sapiens

<400> 4108
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 50 55 60
 Lys Asn Tyr Gly Met Thr Arg Met Asp Pro Tyr Cys Arg Leu Arg Leu
 65 70 75 80
 Gly Tyr Ala Val Tyr Glu Thr Pro Thr Ala His Asn Gly Ala Lys Asn
 85 90 95
 Pro Arg Trp Asn Lys Val Ile His Cys Thr Val Pro Pro Gly Val Asp
 100 105 110
 Ser Phe Tyr Leu Glu Ile Phe Asp Glu Arg Ala Phe Ser Met Asp Asp
 115 120 125
 Arg Ile Ala Trp Thr His Ile Thr Ile Pro Glu Ser Leu Arg Gln Gly
 130 135 140
 Lys Val Glu Asp Lys Trp Tyr Ser Leu Ser Gly Arg Gln Gly Asp Asp
 145 150 155 160
 Lys Glu Gly Met Ile Asn Leu Val Met Ser Tyr Ala Leu Leu Pro Ala
 165 170 175
 Ala Met Val Met Pro Pro Gln Pro Val Val Leu Met Pro Thr Val Tyr
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 Gln Gln Gly Val Gly Tyr Val Pro Ile Thr Gly Met Pro Ala Val Cys
 195 200 205
 Ser Pro Gly Met Val Pro Val Ala Leu Pro Pro Ala Ala Val Asn Ala

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Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln Arg		240
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<210> 4109

<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4109

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<212> PRT

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<213> Homo sapiens

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<210> 4116
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 4116
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 35 40 45
 Pro Thr Leu Gly Ser Ser Asn Asn Gln Leu Asn Ser Ser Leu Leu Gln
 50 55 60
 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe
 65 70 75 80
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg
 85 90 95
 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu
 100 105 110
 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn
 115 120 125
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<210> 4117
 <211> 973
 <212> DNA
 <213> Homo sapiens

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<210> 4118
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4118
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 35 40 45
 Arg Cys Val Gly Cys Pro Arg Pro Ala Arg Pro Ala Ser Pro Ser Pro
 50 55 60
 Gly Glu Ala Thr Pro Pro Pro Ser Ser Gly Ile Ser Ala Val Lys Pro
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 Pro Leu Arg Ser Pro Arg Thr Leu Pro Leu Glu Leu Gly Thr Gly Gly
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 Cys Val Cys Ala Gly Leu Gly Pro Asn Thr Pro Gly Cys Gln Leu His
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<210> 4119
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 <212> DNA
 <213> Homo sapiens

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<210> 4120
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4120
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 Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr
 35 40 45
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu
 50 55 60
 Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala
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 His Ser Leu His
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<210> 4121
 <211> 2490
 <212> DNA
 <213> Homo sapiens

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<210> 4122

<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

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Phe	Gly	Leu	Gly	Leu	Gly	Leu	Ile	Glu	Lys	Gln	Ala	Glu	Ser	Arg	
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Arg	Ala	Val	Ser	Ala	Cys	Gln	Glu	Ile	Gln	Ala	Ile	Phe	Thr	Gln	Lys
		35					40					45			
Ser	Lys	Pro	Gly	Pro	Asp	Pro	Leu	Asp	Thr	Arg	Arg	Leu	Gln	Gly	Phe
	50				55				60						
Arg	Leu	Glu	Glu	Tyr	Leu	Ile	Gly	Gln	Ser	Ile	Gly	Lys	Gly	Cys	Ser
65				70					75					80	
Ala	Ala	Val	Tyr	Glu	Ala	Thr	Met	Pro	Thr	Leu	Pro	Gln	Asn	Leu	Glu
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Val	Thr	Lys	Ser	Thr	Gly	Leu	Leu	Pro	Gly	Arg	Gly	Pro	Gly	Thr	Ser
		100						105					110		
Ala	Pro	Gly	Glu	Gly	Gln	Glu	Arg	Ala	Pro	Gly	Ala	Pro	Ala	Phe	Pro
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Leu	Ala	Ile	Lys	Met	Met	Trp	Asn	Ile	Ser	Ala	Gly	Ser	Ser	Ser	Glu
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Ala Phe Thr Ser Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr
          195          200          205
Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
          210          215          220
Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln
225          230          235          240
Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
          245          250          255
Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala
          260          265          270
His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp
          275          280          285
Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp
          290          295          300
Glu Ser Ile Gly Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg
305          310          315          320
Gly Gly Asn Gly Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro
          325          330          335
Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val
          340          345          350
Gly Ala Ile Ala Tyr Glu Ile Phe Gly Leu Val Asn Pro Phe Tyr Gly
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Gln Gly Lys Ala His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu
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Pro Ala Leu Pro Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg
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Ala Leu Leu Gln Arg Glu Ala Ser Lys Arg Pro Ser Ala Arg Val Ala
          405          410          415
Ala Asn Val Leu His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu
          420          425          430
Lys Asn Leu Lys Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser
          435          440          445
Ala Ala Thr Leu Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu
          450          455          460
Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
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<210> 4123

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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<210> 4124

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4124

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		20					25					30			
Gly	Asp	Leu	Ala	Thr	Leu	Cys	Ser	Leu	Leu	Gln	Gln	Thr	Pro	His	Ala
	35					40					45				
His	Leu	Ala	Ser	Glu	Asp	Ser	Phe	Tyr	Gly	Trp	Thr	Pro	Val	His	Trp
	50				55					60					
Ala	Ala	His	Phe	Gly	Lys	Leu	Glu	Cys	Leu	Val	Gln	Leu	Val	Arg	Ala
65			70						75					80	
Gly	Ala	Thr	Leu	Asn	Val	Ser	Thr	Thr	Arg	Tyr	Ala	Gln	Thr	Pro	Ala
		85					90					95			
His	Ile	Ala	Ala	Phe	Gly	Gly	His	Pro	Gln	Cys	Leu	Val	Trp	Leu	Ile

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Val Ala Asn Gly Ala His Val Asp Ser Gln His
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<210> 4125
<211> 4711
<212> DNA
<213> Homo sapiens

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<210> 4126

<211> 820

<212> PRT

<213> Homo sapiens

<400> 4126

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Arg	Lys	Leu	Arg	Met	Lys	Leu	Leu	Trp	Gln	Ala	Lys	Met	Ser	Ser	Ile
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Gln	Asp	Trp	Gly	Glu	Glu	Val	Glu	Glu	Gly	Ala	Val	Tyr	His	Val	Thr
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Leu	Gly	Val	Glu	Gly	Asp	Gln	Leu	Pro	Pro	Gly	His	Thr	Val	Ser	Gln
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Tyr	Glu	Thr	Cys	Lys	Ile	Arg	Thr	Ile	Lys	Ala	Gly	Thr	Leu	Glu	Lys
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	325	330
Thr Leu Thr Lys Cys Val Val Ser Thr Ile Leu Gly Gly Lys Glu Leu		335
	340	345
Lys Thr Gln Gln Arg Ala Lys Ile Ile Glu Lys Trp Ile Asn Ile Ala		350
	355	360
His Glu Cys Arg Leu Leu Lys Asn Phe Ser Ser Leu Arg Ala Ile Val		365
	370	375
Ser Ala Leu Gln Ser Asn Ser Ile Tyr Arg Leu Lys Lys Thr Trp Ala		380
385	390	395
Ala Val Pro Arg Asp Arg Met Leu Met Phe Glu Glu Leu Ser Asp Ile		400
	405	410
Phe Ser Asp His Asn Asn His Leu Thr Ser Arg Glu Leu Leu Met Lys		415
	420	425
Glu Gly Thr Ser Lys Phe Ala Asn Leu Asp Ser Ser Val Lys Glu Asn		430
	435	440
Gln Lys Arg Thr Gln Arg Arg Leu Gln Leu Gln Lys Asp Met Gly Val		445
450	455	460
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Met Leu Asp Thr Ala Leu Gln Asp Tyr Ile Glu Gly Gly Leu Ile Asn		480
	485	490
Phe Glu Lys Arg Arg Arg Glu Phe Glu Val Ile Ala Gln Ile Lys Leu		495
	500	505
Leu Gln Ser Ala Cys Asn Ser Tyr Cys Met Thr Pro Asp Gln Lys Phe		510
	515	520
Ile Gln Trp Phe Gln Arg Gln Gln Leu Leu Thr Glu Glu Glu Ser Tyr		525
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Ala Leu Ser Cys Glu Ile Glu Ala Ala Ala Gly Ala Ser Thr Thr Ser		540
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Pro Lys Pro Arg Lys Ser Met Val Lys Arg Leu Ser Leu Leu Phe Leu		560
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Gly Ser Asp Met Ile Thr Ser Pro Thr Pro Thr Lys Glu Gln Pro Lys		575
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Ser Ser Cys Ser Ser Ile His Ser Met Asp Thr Asn Ser Ser Gly Met		640
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	660	665
Pro Lys Ile His Lys Arg Ser Val Ser Val Thr Ser Ile Thr Ser Thr		670
	675	680
Val Leu Pro Pro Val Tyr Asn Gln Gln Asn Glu Asp Thr Cys Ile Ile		685
	690	695
Arg Ile Ser Val Glu Asp Asn Asn Gly Asn Met Tyr Lys Ser Ile Met		700
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<212> DNA
<213> Homo sapiens
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<210> 4128

<211> 445

<212> PRT

<213> Homo sapiens

<400> 4128

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		20					25					30			
Arg	Tyr	Asp	Ile	Val	Phe	Leu	Pro	Pro	Ser	Phe	Pro	Ile	Val	Ala	Met
	35					40					45				
Glu	Asn	Pro	Cys	Leu	Thr	Phe	Ile	Ile	Ser	Ser	Ile	Leu	Glu	Ser	Asp

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Gly Asn Ala Val Thr Asn Ala Thr Trp Glu Glu Met Trp Leu Ser Glu		80
	85	90
Gly Leu Ala Thr Tyr Ala Gln Arg Arg Ile Thr Thr Glu Thr Tyr Gly		95
	100	105
Ala Ala Phe Thr Cys Leu Glu Thr Ala Phe Arg Leu Asp Ala Leu His		110
	115	120
Arg Gln Met Lys Leu Leu Gly Glu Asp Ser Pro Val Ser Lys Leu Gln		125
	130	135
Val Lys Leu Glu Pro Gly Val Asn Pro Ser His Leu Met Asn Leu Phe		140
	145	150
Thr Tyr Glu Lys Gly Tyr Cys Phe Val Tyr Tyr Leu Ser Gln Leu Cys		155
	165	170
Gly Asp Pro Gln Arg Phe Asp Asp Phe Leu Arg Ala Tyr Val Glu Lys		175
	180	185
Tyr Lys Phe Thr Ser Val Val Ala Gln Asp Leu Leu Asp Ser Phe Leu		190
	195	200
Ser Phe Phe Pro Glu Leu Lys Glu Gln Ser Val Asp Cys Arg Ala Gly		205
	210	215
Leu Glu Phe Glu Arg Trp Leu Asn Ala Thr Gly Pro Pro Leu Ala Glu		220
	225	230
Pro Asp Leu Ser Gln Gly Ser Ser Leu Thr Arg Pro Val Glu Ala Leu		235
	245	250
Phe Gln Leu Trp Thr Ala Glu Pro Leu Asp Gln Ala Ala Ser Ala		255
	260	265
Ser Ala Ile Asp Ile Ser Lys Trp Arg Thr Phe Gln Thr Ala Leu Phe		270
	275	280
Leu Asp Arg Leu Leu Asp Gly Ser Pro Leu Pro Gln Glu Val Val Met		285
	290	295
Ser Leu Ser Lys Cys Tyr Ser Ser Leu Leu Asp Ser Met Asn Ala Glu		300
	305	310
Ile Arg Ile Arg Trp Leu Gln Ile Val Val Arg Asn Asp Tyr Tyr Pro		315
	325	330
Asp Leu His Arg Val Arg Arg Phe Leu Glu Ser Gln Met Ser Arg Met		335
	340	345
Tyr Thr Ile Pro Leu Tyr Glu Asp Leu Cys Thr Gly Ala Leu Lys Ser		350
	355	360
Phe Ala Leu Glu Val Phe Tyr Gln Thr Gln Gly Arg Leu His Pro Asn		365
	370	375
Leu Arg Arg Ala Ile Gln Gln Ile Leu Ser Gln Gly Leu Gly Ser Ser		380
	385	390
Thr Glu Pro Ala Ser Glu Pro Ser Thr Glu Leu Gly Lys Ala Glu Ala		395
	405	410
Asp Thr Asp Ser Asp Ala Gln Ala Leu Leu Leu Gly Asp Glu Ala Pro		415
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<210> 4129

<211> 1749

<212> DNA

<213> Homo sapiens

<400> 4129
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<210> 4130
 <211> 523
 <212> PRT
 <213> Homo sapiens

<400> 4130
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 35 40 45
 Ser Leu Glu Asp Asn Gly Ser Thr Arg Val Thr Pro Ser Val Gln Pro
 50 55 60
 His Leu Gln Pro Ile Arg Asn Met Ser Val Ser Arg Thr Met Glu Asp
 65 70 75 80
 Ser Cys Glu Leu Asp Leu Val Tyr Val Thr Glu Arg Ile Ile Ala Val
 85 90 95
 Ser Phe Pro Ser Thr Ala Asn Glu Glu Asn Phe Arg Ser Asn Leu Arg
 100 105 110
 Glu Val Ala Gln Met Leu Lys Ser Lys His Gly Gly Asn Tyr Leu Leu
 115 120 125
 Phe Asn Leu Ser Glu Arg Arg Pro Asp Ile Thr Lys Leu His Ala Lys
 130 135 140
 Val Leu Glu Phe Gly Trp Pro Asp Leu His Thr Pro Ala Leu Glu Lys
 145 150 155 160
 Ile Cys Ser Ile Cys Lys Ala Met Asp Thr Trp Leu Asn Ala Asp Pro
 165 170 175
 His Asn Val Val Val Leu His Asn Lys Gly Asn Arg Gly Arg Ile Gly
 180 185 190
 Val Val Ile Ala Ala Tyr Met His Tyr Ser Asn Ile Ser Ala Ser Ala
 195 200 205
 Asp Gln Ala Leu Asp Arg Phe Ala Met Lys Arg Phe Tyr Glu Asp Lys
 210 215 220
 Ile Val Pro Ile Gly Gln Pro Ser Gln Arg Arg Tyr Val His Tyr Phe
 225 230 235 240
 Ser Gly Leu Leu Ser Gly Ser Ile Lys Met Asn Asn Lys Pro Leu Phe
 245 250 255
 Leu His His Val Ile Met His Gly Ile Pro Asn Phe Glu Ser Lys Gly
 260 265 270
 Gly Cys Arg Pro Phe Leu Arg Ile Tyr Gln Ala Met Gln Pro Val Tyr
 275 280 285
 Thr Ser Gly Ile Tyr Asn Ile Pro Gly Asp Ser Gln Thr Ser Val Cys
 290 295 300
 Ile Thr Ile Glu Pro Gly Leu Leu Leu Lys Gly Asp Ile Leu Leu Lys


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Cys Tyr His Lys Lys Phe Arg Ser Pro Ala Arg Asp Val Ile Phe Arg
          325          330          335
Val Gln Phe His Thr Cys Ala Ile His Ala Trp Gly Val Val Phe Gly
          340          345          350
Lys Glu Asp Leu Asp Asp Ala Phe Lys Asp Asp Arg Phe Pro Glu Tyr
          355          360          365
Gly Lys Val Glu Phe Val Phe Ser Tyr Gly Pro Glu Lys Ile Gln Gly
          370          375          380
Met Glu His Leu Glu Asn Gly Pro Ser Val Ser Val Asp Tyr Asn Thr
385          390          395          400
Ser Asp Pro Leu Ile Arg Trp Asp Ser Tyr Asp Asn Phe Ser Gly His
          405          410          415
Arg Asp Asp Gly Met Glu Glu Val Val Gly His Thr Gln Gly Pro Leu
          420          425          430
Asp Gly Ser Leu Tyr Ala Lys Val Lys Lys Lys Asp Ser Leu His Gly
          435          440          445
Ser Thr Gly Ala Val Asn Ala Thr Arg Pro Thr Leu Ser Ala Thr Pro
          450          455          460
Asn His Val Glu His Thr Leu Ser Val Ser Ser Asp Ser Gly Asn Ser
465          470          475          480
Thr Ala Ser Thr Lys Thr Asp Lys Thr Asp Glu Pro Val Pro Gly Ala
          485          490          495
Ser Ser Ala His Ala Ala Arg Thr Val Thr Ile Leu Val Trp Gln Phe
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Ile Val Gln Asp Val Cys Leu Pro Leu Arg Cys
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<210> 4131
<211> 608
<212> DNA
<213> Homo sapiens

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<210> 4132
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<400> 4132
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35 40 45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
50 55 60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
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Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala
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Pro Gly

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<211> 1646
<212> DNA
<213> Homo sapiens

<400> 4133
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<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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 <213> Homo sapiens

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 Leu Leu Ser Pro Asp Tyr Met Asp Leu Glu Asp Pro Arg Pro Ile Phe
 50 55 60
 Asp Trp Met Gln Ile Ile Arg Lys Arg Ala Val Val Tyr Val Gly Leu
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 Asp Ala Leu Ser Asp Thr Glu Val Ala Ala Val Gly Asn Ser Met
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 <212> DNA
 <213> Homo sapiens

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<210> 4138
 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 4138

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			20					25					30		
Asn	Val	Glu	Ala	Val	Asp	Pro	Arg	Gly	Arg	Thr	Leu	Leu	His	Leu	Ala
		35					40					45			
Val	Ser	Leu	Gly	His	Leu	Glu	Ser	Ala	Arg	Val	Leu	Leu	Arg	His	Lys
	50					55				60					
Ala	Asp	Val	Thr	Lys	Glu	Asn	Arg	Gln	Gly	Trp	Thr	Val	Leu	His	Glu
65				70					75					80	
Ala	Val	Ser	Thr	Gly	Asp	Pro	Glu	Met	Val	Tyr	Thr	Val	Leu	Gln	His
			85						90					95	
Arg	Asp	Tyr	His	Asn	Thr	Ser	Met	Ala	Leu	Glu	Gly	Val	Pro	Glu	Leu
			100					105					110		
Leu	Gln	Lys	Ile	Leu	Glu	Ala	Pro	Asp	Phe	Tyr	Val	Gln	Met	Lys	Trp
		115					120					125			
Glu	Phe	Thr	Ser	Trp	Val	Pro	Leu	Val	Ser	Arg	Ile	Cys	Pro	Asn	Asp
	130					135				140					
Val	Cys	Arg	Ile	Trp	Lys	Ser	Gly	Ala	Lys	Leu	Arg	Val	Asp	Ile	Thr
145					150					155				160	
Leu	Leu	Gly	Phe	Glu	Asn	Met	Ser	Trp	Ile	Arg	Gly	Arg	Arg	Ser	Phe
			165					170					175		
Ile	Phe	Lys	Gly	Glu	Asp	Asn	Trp	Ala	Glu	Leu	Met	Glu	Val	Asn	His
		180						185					190		
Asp	Asp	Lys	Val	Val	Thr	Thr	Glu	Arg	Phe	Asp	Leu	Ser	Gln	Glu	Met
	195						200					205			
Glu	Arg	Leu	Thr	Leu	Asp	Leu	Met	Lys	Pro	Lys	Ser	Arg	Glu	Val	Glu
	210					215					220				
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225					230					235				240	
Ile	Ala	Phe	Glu	Arg	Thr	Lys	Ser	Gly	Phe	Trp	Gly	Trp	Arg	Thr	Asp
			245						250					255	
Lys	Ala	Glu	Val	Val	Asn	Gly	Tyr	Glu	Ala	Lys	Val	Tyr	Thr	Val	Asn
		260						265					270		
Asn	Val	Asn	Val	Ile	Thr	Lys	Ile	Arg	Thr	Glu	His	Leu	Thr	Glu	Glu
		275					280					285			
Glu	Lys	Lys	Arg	Tyr	Lys	Ala	Asp	Arg	Asn	Pro	Leu	Glu	Ser	Leu	Leu
	290					295					300				
Gly	Thr	Val	Glu	His	Gln	Phe	Gly	Ala	Gln	Gly	Asp	Leu	Thr	Thr	Glu
305					310					315				320	
Cys	Ala	Thr	Ala	Asn	Pro	Thr	Ala	Ile	Thr	Pro	Asp	Glu	Tyr	Phe	
			325					330					335		
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 <210> 4139
 <211> 431
 <212> DNA
 <213> Homo sapiens

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 <210> 4140
 <211> 50
 <212> PRT
 <213> Homo sapiens

 <400> 4140
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 Val Pro
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 <210> 4141
 <211> 1182
 <212> DNA
 <213> Homo sapiens

 <400> 4141
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<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

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Asp	Asp	Ala	Asn	Lys	Lys	Trp	Val	Pro	Ala	Gly	Gly	Ser	Thr	Gly	Phe
			20					25					30		
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
		35					40					45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
		50				55					60				
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
65				70					75					80	
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
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Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

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Ser	Gln	Glu	Thr	Gly	Pro	Thr	Leu	Pro	Arg	Gln	Asn	Ser	Gln	Leu	Pro
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Ala	Gln	Val	Gln	Asn	Gly	Pro	Ser	Gln	Glu	Glu	Leu	Glu	Ile	Gln	Arg
	130						135					140			
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			180					185					190		
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	195						200					205			
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	210						215					220			
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225				230					235					240	
Arg	Gln	Glu	Arg	Glu	Arg	Gln	Glu	Gln	Leu	Glu	Arg	Glu	Gln	Leu	Glu
			245						250					255	
Trp	Glu	Arg	Glu	Arg	Arg	Ile	Ser	Ser	Ala	Ala	Ala	Pro	Ala	Ser	Val
	260							265					270		
Glu	Thr	Pro	Leu	Asn	Ser	Val	Leu	Gly	Asp	Ser	Ser	Ala	Ser	Glu	Pro
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Gly	Leu	Gln	Ala	Ala	Ser	Gln	Pro	Ala	Glu	Thr	Pro	Ser	Gln	Gln	Gly
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 <211> 1773
 <212> DNA
 <213> Homo sapiens

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<210> 4144

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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Arg	Gly	Cys	Trp	Val	Asn	Gly	Ile	Arg	Arg	Leu	Ile	Val	Ser	Arg	Arg
			20					25					30		
Gly	Asp	Glu	Glu	Glu	Phe	Phe	Glu	Ile	Arg	Thr	Glu	Trp	Ser	Asp	Arg
			35					40					45		
Ser	Val	Leu	Tyr	Leu	His	Arg	Ser	Leu	Ala	Asp	Leu	Gly	Arg	Leu	Trp

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Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Leu Lys Thr Ile Ile Ser
      100              105              110
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
      115              120              125
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile
      130              135              140
Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser
      145              150              155              160
Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser
      165              170              175
Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His
      180              185              190
Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp
      195              200              205
Asp Pro Ala Ala Tyr Val Thr Asn Leu Ser Tyr Tyr His Leu Val Pro
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Phe Glu Thr Asp Ile Trp Asp
225              230

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<210> 4145

<211> 400

<212> DNA

<213> Homo sapiens

<400> 4145

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<211> 697

<212> PRT

<213> Homo sapiens

<400> 4148

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 Gln Arg Arg Arg Gln Ser Lys Glu Gln Asp Glu Val Arg His Gly Arg
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 Asn Thr Phe Gly Cys Ala Gly Glu Arg Ser Lys Pro Lys Arg Gln Lys
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<212> DNA

<213> Homo sapiens

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<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

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<213> Homo sapiens

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<211> 110

<212> PRT

<213> Homo sapiens

<400> 4154

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Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
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Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
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<212> DNA
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<210> 4156
<211> 233
<212> PRT
<213> Homo sapiens

<400> 4156
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Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys			
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Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly			
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<211> 3460

<212> DNA

<213> Homo sapiens

<400> 4157

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<210> 4158

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4158

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Pro	Leu	Leu	Gln	Arg	Ala	Val	Glu	Asn	Asn	Val	Val	Ser	Arg	Arg	Asn					
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<210> 4159
<211> 1491
<212> DNA
<213> Homo sapiens

<400> 4159
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<210> 4160
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 <212> PRT
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<400> 4160
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 35 40 45
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 65 70 75 80
 Lys Leu Thr Ser Ala Ser Lys Glu Ser Leu Ser Thr His Thr Ser Pro
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 Ser Gln Ser Pro Asn Ser Val His Gly Ser Arg Arg Gly Ser Ile Ser
 100 105 110
 Ser Met Ser Ser Val Ser Ser Val Leu Asp Glu Lys Asp Asp Asp Arg
 115 120 125
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 130 135 140
 Gln Ile Asp Glu Lys Glu His Thr Pro Asp Ile Val Lys Leu Tyr Glu
 145 150 155 160
 Lys Leu Arg Leu Cys Met Glu Lys Val Asp Gln Lys Ala Pro Glu Tyr
 165 170 175
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 180 185 190
 Glu His Ala Ser Asp Leu Arg Val Glu Val Gln Lys Val Tyr Glu Leu
 195 200 205
 Ile Asp Ala Leu Ser Lys Lys Ile Leu Thr Leu Gly Leu Asn Gln Asp
 210 215 220
 Pro Pro Pro His Pro Ser Asn Leu Arg Leu Gln Arg Met Ile Arg Tyr
 225 230 235 240
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 245 250 255
 Pro Thr Lys Glu Gln Phe Glu Glu Leu Lys Lys Lys Arg Lys Glu Glu
 260 265 270
 Met Glu Arg Lys Arg Ala Val Glu Arg Gln Ala Ala Leu Glu Ser Gln
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 290 295 300
 Gly Glu Val Ala Ser Leu Arg Arg Gly Pro Ala Pro Leu Lys Lys Ala
 305 310 315 320
 Glu Gly Trp Leu Pro Leu Ser Gly Gly Gln Gly Gln Ser Glu Asp Ser
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<210> 4161
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 <212> DNA
 <213> Homo sapiens

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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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Glu	His	Ser	Glu	Asn	Val	His	Ile	Ser	Gly	Val	Ser	Thr	Ala	Cys	Gly
		35					40					45			
Glu	Thr	Pro	Glu	Gln	Ile	Arg	Ala	Pro	Ser	Gly	Ile	Ile	Thr	Ser	Pro
	50					55					60				
Gly	Trp	Pro	Ser	Glu	Tyr	Pro	Ala	Lys	Ile	Asn	Cys	Ser	Trp	Phe	Ile
65				70					75					80	
Arg	Ala	Asn	Pro	Gly	Glu	Ile	Ile	Thr	Ile	Ser	Phe	Gln	Asp	Phe	Asp
			85						90					95	
Ile	Gln	Gly	Ser	Arg	Arg	Cys	Asn	Leu	Asp	Trp	Leu	Thr	Ile	Glu	Thr
			100					105					110		
Tyr	Lys	Asn	Ile	Glu	Ser	Tyr	Arg	Ala	Cys	Gly	Ser	Thr	Ile	Pro	Pro
		115					120					125			
Pro	Tyr	Ile	Ser	Ser	Gln	Asp	His	Ile	Trp	Ile	Arg	Phe	His	Ser	Asp
	130					135					140				
Asp	Asn	Ile	Ser	Arg	Lys	Gly	Phe	Arg	Leu	Ala	Tyr	Phe	Ser	Gly	Lys
145				150					155					160	
Ser	Glu	Glu	Pro	Asn	Cys	Ala	Cys	Asp	Gln	Phe	Arg	Cys	Gly	Asn	Gly
			165						170					175	
Lys	Cys	Ile	Pro	Glu	Ala	Trp	Lys	Cys	Asn	Asn	Met	Asp	Glu	Cys	Gly
			180					185					190		
Asp	Ser	Ser	Asp	Glu	Glu	Ile	Cys	Ala	Lys	Glu	Ala	Asn	Pro	Pro	Thr
		195					200					205			
Ala	Ala	Ala	Phe	Gln	Pro	Cys	Ala	Tyr	Asn	Gln	Phe	Gln	Cys	Leu	Ser
	210					215					220				
Arg	Phe	Thr	Lys	Val	Tyr	Thr	Cys	Leu	Pro	Glu	Ser	Leu	Lys	Cys	Asp
225				230						235				240	
Gly	Asn	Ile	Asp	Cys	Leu	Asp	Leu	Gly	Asp	Glu	Ile	Asp	Cys	Asp	Val
			245					250					255		
Pro	Thr	Cys	Gly	Gln	Trp	Leu	Lys	Tyr	Phe	Tyr	Gly	Thr	Phe	Asn	Ser

	260		265		270										
Pro	Asn	Tyr	Pro	Asp	Phe	Tyr	Pro	Pro	Gly	Ser	Asn	Cys	Thr	Trp	Leu
	275						280					285			
Ile	Asp	Thr	Gly	Asp	His	Arg	Lys	Val	Ile	Leu	Arg	Phe	Thr	Asp	Phe
	290					295					300				
Lys	Leu	Asp	Gly	Thr	Gly	Tyr	Gly	Asp	Tyr	Val	Lys	Ile	Tyr	Asp	Gly
305					310					315					320
Leu	Glu	Glu	Asn	Pro	His	Lys	Leu	Leu	Arg	Val	Leu	Thr	Ala	Phe	Asp
			325						330					335	
Ser	His	Ala	Pro	Leu	Thr	Val	Val	Ser	Ser	Ser	Gly	Gln	Ile	Arg	Val
		340						345					350		
His	Phe	Cys	Ala	Asp	Lys	Val	Asn	Ala	Ala	Arg	Gly	Phe	Asn	Ala	Thr
	355						360					365			
Tyr	Gln	Val	Asp	Gly	Phe	Cys	Leu	Pro	Trp	Glu	Ile	Pro	Cys	Gly	Gly
	370				375						380				
Asn	Trp	Gly	Cys	Tyr	Thr	Glu	Gln	Gln	Arg	Cys	Asp	Gly	Tyr	Trp	His
385					390					395					400
Cys	Pro	Asn	Gly	Arg	Asp	Glu	Thr	Asn	Cys	Thr	Met	Cys	Gln	Lys	Glu
			405						410					415	
Glu	Phe	Pro	Cys	Ser	Arg	Asn	Gly	Val	Cys	Tyr	Pro	Arg	Ser	Asp	Arg
		420					425					430			
Cys	Asn	Tyr	Gln	Asn	His	Cys	Pro	Asn	Gly	Ser	Asp	Glu	Lys	Asn	Cys
	435						440					445			
Phe	Phe	Cys	Gln	Pro	Gly	Asn	Phe	His	Cys	Lys	Asn	Asn	Arg	Cys	Val
	450				455						460				
Phe	Glu	Ser	Trp	Val	Cys	Asp	Ser	Gln	Asp	Asp	Cys	Gly	Asp	Gly	Ser
465					470					475					480
Asp	Glu	Glu	Asn	Cys	Pro	Val	Ile	Val	Pro	Thr	Arg	Val	Ile	Thr	Ala
			485						490					495	
Ala	Val	Ile	Gly	Ser	Leu	Ile	Cys	Gly	Leu	Leu	Leu	Val	Ile	Ala	Leu
		500					505						510		
Gly	Cys	Thr	Cys	Lys	Leu	Tyr	Ser	Leu	Arg	Met	Phe	Glu	Arg	Arg	Ser
	515						520					525			
Phe	Glu	Thr	Gln	Leu	Ser	Arg	Val	Glu	Ala	Glu	Leu	Leu	Arg	Arg	Glu
	530					535					540				
Ala	Pro	Pro	Ser	Tyr	Gly	Gln	Leu	Ile	Ala	Gln	Gly	Leu	Ile	Pro	Pro
545					550					555					560
Val	Glu	Asp	Phe	Pro	Val	Cys	Ser	Pro	Asn	Gln	Ala	Ser	Val	Leu	Glu
			565						570					575	
Asn	Leu	Arg	Leu	Ala	Val	Arg	Ser	Gln	Leu	Gly	Phe	Thr	Ser	Val	Arg
		580						585					590		
Leu	Pro	Met	Ala	Gly	Arg	Ser	Ser	Asn	Ile	Trp	Asn	Arg	Ile	Phe	Asn
	595						600					605			
Phe	Ala	Arg	Ser	Arg	His	Ser	Gly	Ser	Leu	Ala	Leu	Val	Ser	Ala	Asp
	610					615					620				
Gly	Asp	Glu	Val	Val	Pro	Ser	Gln	Ser	Thr	Ser	Arg	Glu	Pro	Glu	Arg
625					630					635					640
Asn	His	Thr	His	Arg	Ser	Leu	Phe	Ser	Val	Glu	Ser	Asp	Asp	Thr	Asp
			645						650					655	
Thr	Glu	Asn	Glu	Arg	Arg	Asp	Met	Ala	Gly	Ala	Ser	Gly	Gly	Val	Ala
		660					665						670		
Ala	Pro	Leu	Pro	Gln	Lys	Val	Pro	Pro	Thr	Thr	Ala	Val	Glu	Ala	Thr
	675						680					685			
Val	Gly	Ala	Cys	Ala	Ser	Ser	Ser	Thr	Gln	Ser	Thr	Arg	Gly	Gly	His

690	695	700
Ala Asp Asn Gly Arg Asp Val Thr Ser Val Glu Pro Pro Ser Val Ser		
705	710	715
Pro Ala Arg His Gln Leu Thr Ser Ala Leu Ser Arg Met Thr Gln Gly		720
	725	730
Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln		735
	740	745
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu		750
	755	760
Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser		765
	770	775
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser		780
	785	790
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly		800
	805	810
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val		815
	820	825
His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn		830
	835	840
Glu Thr Ser Asp Asp Glu Ala Leu Leu Leu Cys		845
850	855	

<210> 4163
 <211> 568
 <212> DNA
 <213> Homo sapiens

<400> 4163
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 120
 gcaggcagcc ggcccctctc cctcccttt tcccgcctgc gctctgaagg ctccaagtca
 180
 gtgttgcccc agtggctctg ggggatgaag gggatcccgg tcccatctgg acaccctcaa
 240
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 360
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 420
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 540
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 568

<210> 4164
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 4164

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 Arg Pro Thr Pro Gly Leu Pro Gly Gln Ser Gly His Gly Ser Leu Gln
 20 25 30
 Cys Gly Leu Gln Asp Pro Ala Gly Ser Arg Pro Leu Ser Pro Pro Phe
 35 40 45
 Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu
 50 55 60
 Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
 65 70 75 80
 Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu
 85 90 95
 Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
 100 105 110
 Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
 115 120 125
 Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
 130 135 140
 Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
 145 150 155 160
 Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro
 165 170 175
 Trp Thr Cys Arg His Met Ala Ile Glu Leu Gln
 180 185

<210> 4165

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4165

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 120
 ctgctggact gcgccaggcg taccctggag agggaggggc cccgtgcctt ctaccgcggc
 180
 tacctcccca acgtgctggg catcatcccc tatgcgggca tcgacctggc cgtctacgag
 240
 actctgaaga actggtggct tcagcagtag agccacgact cggcagaccc aggcatacctc
 300
 gtgctcctgg cctgcggtag catatccagc acctgcggcc agatagccag ttaccgctg
 360
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 420
 gaactcgtgg ggtcaaggaa ttcgccagcc ttcagcctcc caacgtgctg ggattacagg
 480
 aagccggtgg tcatgccatg agcagcetta tggagaggac catgtggtta ggaactcagc
 540
 caatagccat gtaactgagc ttggaagagg atcttgctgt cctggccaac atctcactgc
 600
 aattctatca gttgaattcc ctggatagtc caagctttgt ggatccctcc accagaacaa
 660

ctggatccca gtacctgaat cctgaatctt agactcttat acttcaaaca ctgatca
717

<210> 4166

<211> 166

<212> PRT

<213> Homo sapiens

<400> 4166

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Gln	Thr	Ile	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Leu	Thr	Leu
		20						25					30		
Arg	Arg	Thr	Gly	Gln	Tyr	Lys	Gly	Leu	Leu	Asp	Cys	Ala	Arg	Arg	Ile
		35					40					45			
Leu	Glu	Arg	Glu	Gly	Pro	Arg	Ala	Phe	Tyr	Arg	Gly	Tyr	Leu	Pro	Asn
	50					55					60				
Val	Leu	Gly	Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu
65					70				75					80	
Thr	Leu	Lys	Asn	Trp	Trp	Leu	Gln	Gln	Tyr	Ser	His	Asp	Ser	Ala	Asp
			85						90					95	
Pro	Gly	Ile	Leu	Val	Leu	Leu	Ala	Cys	Gly	Thr	Ile	Ser	Ser	Thr	Cys
			100					105					110		
Gly	Gln	Ile	Ala	Ser	Tyr	Pro	Leu	Ala	Leu	Val	Arg	Thr	Arg	Met	Gln
		115					120					125			
Ala	Gln	Gly	Phe	His	His	Val	Ala	Gln	Ala	His	Leu	Glu	Leu	Val	Gly
	130					135					140				
Ser	Arg	Asn	Ser	Pro	Ala	Phe	Ser	Leu	Pro	Thr	Cys	Trp	Asp	Tyr	Arg
145					150					155				160	
Lys	Pro	Val	Val	Met	Pro										
				165											

<210> 4167

<211> 897

<212> DNA

<213> Homo sapiens

<400> 4167

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120
gatctcagcc caccgcaact tccgcctcct gggatcaagc aatcctcctg cttcagcctc
180
ctgagtagct tggactacag atatggccgc gtggaaagtg tcaaaattct tccaagagg
240
ggatctgaag gaggagtggc tgcctttgtg gattttgtgg acatcaaaag tgcacagaaa
300
gctcacaact cggtaacaa aatgggtgac agagacctac gcacggatta taatgaacca
360
ggcaccatcc cgagtgtcgc tcggggattg gatgatacag tttccatagc atctcgtagt
420
agagaggttt ctgggttcag aggaggtggt ggagggcctg cttatggtcc cccaccgtca
480

cttcatgcac gagaaggacg ttatgagcgg agacttgatg gggcttcaga taacagggag
 540
 cgtgcttatg aacatagtgc ctatggacac catgaacggg ggacgggagg atttgatcgg
 600
 acaagacatt acgatcagga ttactataga gatcctcgag agcggacttt acaacatggg
 660
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 720
 gaacctaggg ctgcgagca gtttacctg cccagtgtgg tacacaggga tatctacagg
 780
 gatgatatta cccgggaggt acgaggcaga aggccagagc ggaattacca gcacagcagg
 840
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 897

<210> 4168
 <211> 299
 <212> PRT
 <213> Homo sapiens

<400> 4168

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Gly	Gln	Phe	Thr	Arg	Glu	Arg	Ala	Gly	Arg	Glu	Asp	His	Arg	Ala	Phe
			20					25					30		
Gln	Thr	Ala	Gly	Val	Gln	Trp	Arg	Asp	Leu	Ser	Pro	Pro	Gln	Leu	Pro
		35					40					45			
Pro	Pro	Gly	Ile	Lys	Gln	Ser	Ser	Cys	Phe	Ser	Leu	Leu	Ser	Ser	Leu
	50					55					60				
Asp	Tyr	Arg	Tyr	Gly	Arg	Val	Glu	Ser	Val	Lys	Ile	Leu	Pro	Lys	Arg
65					70					75				80	
Gly	Ser	Glu	Gly	Gly	Val	Ala	Ala	Phe	Val	Asp	Phe	Val	Asp	Ile	Lys
			85						90					95	
Ser	Ala	Gln	Lys	Ala	His	Asn	Ser	Val	Asn	Lys	Met	Gly	Asp	Arg	Asp
			100					105					110		
Leu	Arg	Thr	Asp	Tyr	Asn	Glu	Pro	Gly	Thr	Ile	Pro	Ser	Ala	Ala	Arg
	115					120						125			
Gly	Leu	Asp	Asp	Thr	Val	Ser	Ile	Ala	Ser	Arg	Ser	Arg	Glu	Val	Ser
	130					135						140			
Gly	Phe	Arg	Gly	Gly	Gly	Gly	Gly	Pro	Ala	Tyr	Gly	Pro	Pro	Pro	Ser
145					150					155				160	
Leu	His	Ala	Arg	Glu	Gly	Arg	Tyr	Glu	Arg	Arg	Leu	Asp	Gly	Ala	Ser
			165						170					175	
Asp	Asn	Arg	Glu	Arg	Ala	Tyr	Glu	His	Ser	Ala	Tyr	Gly	His	His	Glu
		180							185				190		
Arg	Gly	Thr	Gly	Gly	Phe	Asp	Arg	Thr	Arg	His	Tyr	Asp	Gln	Asp	Tyr
	195						200					205			
Tyr	Arg	Asp	Pro	Arg	Glu	Arg	Thr	Leu	Gln	His	Gly	Leu	Tyr	Tyr	Ala
	210					215					220				
Ser	Arg	Ser	Arg	Ser	Pro	Asn	Arg	Phe	Asp	Ala	His	Asp	Pro	Arg	Tyr
225					230					235				240	
Glu	Pro	Arg	Ala	Arg	Glu	Gln	Phe	Thr	Leu	Pro	Ser	Val	Val	His	Arg
			245						250					255	
Asp	Ile	Tyr	Arg	Asp	Asp	Ile	Thr	Arg	Glu	Val	Arg	Gly	Arg	Arg	Pro

	260		265		270
Glu Arg Asn Tyr Gln His Ser	Arg Ser Arg Ser	Pro His Ser Ser Gln			
275	280	285			
Ser Arg Asn Gln Ser Pro Gln Arg Leu Ala Ser					
290	295				

<210> 4169

<211> 4743

<212> DNA

<213> Homo sapiens

<400> 4169

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ccccgcctc caccacccat gccctgcag ctcgaggccc acctccgcag ccatggcctg
120

gagcccgagg cccccagccc ccgctgcga ccgaggaga gcctggatcc gccaggcgcc
180

atgcaggaat tgctcggggc tctggagccg ctgccccggg cgctgggga tactggcgta
240

ggcccaccaa actcggaggg caaggatccc gcaggcgctt accgcagccc cagcccgcaa
300

ggcaccaagg cgccgcgttt cgtgcgctc acctccatct gcttccctga ctcttgctc
360

caagacgagg agcgcagctt ctccccacc atggaggaga tgttcggtgg aggggcccgcg
420

gacgactacg gcaaggccgg gccacctgag gacgaggggg accccaaggc tggcgctggg
480

ccaccccccg gccccctgc ttatgatccc tatgggcctt actgtcctgg ccgggcgtcg
540

ggagccgggc ccgagacacc gggcctgggc ctggacccca acaaaccgcc tgaactgccc
600

tccacggtea acgcccagcc gctgggcctg atccagagtg gccccacca ggcggcgcca
660

ccacccccgc ctccgccacc gcgcctccc gcgcggcctt ccgaacccaa ggggtggcctc
720

acctcgccca tcttctgctc taccaagcca aagaagctgc tcaagacatc ctcttccac
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840

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900

cgcttgctg acctggctc cagctgccgc tccgctccgg cctctctgcc actgggggac
960

atcgacttet gcctacccaa cccaggacce gatggccccc ggcgcgctgg ccgcaagccc
1020

acgaaggcga aacgtgatgg gccaccccg ccacggggga ggccccggat ccgccccctg
1080

gagggtcccga ccaactgcgg gccgcctcg gcctccacgc ccaccgatgg cgccaagaaa
1140

ccccggggcc ggggcccagg ccggggtcga aaggtgagg aggcaggggg caccgggttg
1200

gagccccctga agccacttaa gatcaagctg tctgtgcccc aggtctggcga gggctctggga
1260

acctcatcgg gtgatgccat atcaggcact gaccacaaca gcctggactc gagcctgact
1320
cgggagaaga tcgaggccaa gattaaggag gtggaggaga agcagccgga gatgaagtcg
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2880

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3480
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3540
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<211> 900

<212> PRT

<213> Homo sapiens

<400> 4170

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Ala	His	Leu	Arg	Ser	His	Gly	Leu	Glu	Pro	Ala	Ala	Pro	Ser	Pro	Arg
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Leu	Arg	Pro	Glu	Glu	Ser	Leu	Asp	Pro	Pro	Gly	Ala	Met	Gln	Glu	Leu
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Pro	Ser	Pro	Gln	Gly	Thr	Lys	Ala	Pro	Arg	Phe	Val	Pro	Leu	Thr	Ser
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Pro	Thr	Met	Glu	Glu	Met	Phe	Gly	Gly	Gly	Ala	Ala	Asp	Asp	Tyr	Gly
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Lys	Ala	Gly	Pro	Pro	Glu	Asp	Glu	Gly	Asp	Pro	Lys	Ala	Gly	Ala	Gly
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Pro	Pro	Pro	Gly	Pro	Pro	Ala	Tyr	Asp	Pro	Tyr	Gly	Pro	Tyr	Cys	Pro
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Gly	Arg	Ala	Ser	Gly	Ala	Gly	Pro	Glu	Thr	Pro	Gly	Leu	Gly	Leu	Asp
			180					185					190		
Pro	Asn	Lys	Pro	Pro	Glu	Leu	Pro	Ser	Thr	Val	Asn	Ala	Glu	Pro	Leu
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Gly	Leu	Ile	Gln	Ser	Gly	Pro	His	Gln	Ala	Ala	Pro	Pro	Pro	Pro	Pro
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Thr	Ser	Pro	Ile	Phe	Cys	Ser	Thr	Lys	Pro	Lys	Lys	Leu	Leu	Lys	Thr
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 705 710 715 720
 Leu Pro Asp Thr Arg Pro Leu His Leu Ala Lys Lys Gln Glu Thr Ala

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Pro	Ser	Leu	Lys	Leu	Ala	Leu	Gln	Thr	Gly	Arg	Glu	Pro	Pro	Pro	Ile					
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Trp	Arg	Val	Gln	Lys	Ala	Leu	Leu	Gln	Lys	Phe	Thr	Pro	Glu	Ile	Lys					
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Asp	Gly	Gln	Arg	Gln	Phe	Cys	Ala	Thr	Ser	Asn	Tyr	Leu	Gly	Tyr	Phe					
			805					810						815						
Gly	Asp	Ala	Lys	Asn	Arg	Tyr	Gln	Arg	Leu	Tyr	Val	Lys	Phe	Leu	Glu					
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Asn	Val	Asn	Lys	Lys	Asp	Tyr	Val	Arg	Val	Cys	Ala	Arg	Lys	Pro	Trp					
	835					840					845									
His	Arg	Pro	Pro	Val	Pro	Val	Arg	Arg	Ser	Gly	Gln	Ala	Lys	Asn	Pro					
	850				855					860										
Val	Ser	Ala	Gly	Gly	Ser	Ser	Ala	Pro	Pro	Pro	Lys	Ala	Pro	Ala	Pro					
865				870					875					880						
Pro	Pro	Lys	Pro	Glu	Thr	Pro	Glu	Lys	Thr	Thr	Ser	Glu	Lys	Pro	Pro					
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<210> 4171

<211> 889

<212> DNA

<213> Homo sapiens

<400> 4171

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<210> 4172

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4172

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			20					25					30		
Leu	Val	Ile	Ile	Gly	Thr	Leu	Leu	Ala	Trp	Tyr	Leu	Cys	Phe	Leu	Ile
		35					40					45			
Val	Phe	Ile	Leu	Pro	Leu	Asp	Val	Ser	Thr	Thr	Ile	Tyr	Asn	Arg	Cys
	50					55					60				
Lys	His	Ala	Ala	Gln	Ile	Gln	Ala	Leu	Leu	Arg	Ile	Ala	Thr	Leu	Gln
65				70						75				80	
Asp	Cys	Ala	Thr	Ala	Asn	Pro	Val	Pro	Ser	Gln	His	Pro	Cys	Phe	Lys
			85					90					95		
Pro	Trp	Ser	Tyr	Ile	Pro	Asp	Gly	Ile	Met	Pro	Ile	Phe	Trp	Arg	Val
		100					105					110			
Val	Tyr	Trp	Thr	Ser	Gln	Phe	Leu	Thr	Trp	Ile	Leu	Leu	Pro	Phe	Met
	115						120				125				
Gln	Ser	Tyr	Ala	Arg	Ser	Gly	Gly	Phe	Ser	Ile	Thr	Gly	Lys	Ile	Lys
	130					135				140					
Thr	Ala	Leu	Ile	Glu	Asn	Ala	Ile	Tyr	Tyr	Gly	Thr	Tyr	Leu	Leu	Ile
145				150					155					160	
Phe	Gly	Ala	Phe	Leu	Ile	Tyr	Val	Ala	Val	Asn	Pro	His	Leu	His	Leu
			165					170					175		
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<210> 4173

<211> 404

<212> DNA

<213> Homo sapiens

<400> 4173

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<210> 4174
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Leu Leu Cys Cys Cys Val Gln Ala Trp His Leu Gln Asp Gly Asp
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 Ser Phe Leu Thr His Asp His Tyr Tyr Met Leu Asn Asp Leu Pro Asp
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 <213> Homo sapiens

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<211> 586

<212> PRT

<213> Homo sapiens

<400> 4176

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			20					25					30		
Ala	Gly	Leu	Arg	Ala	Ala	Met	Gly	Pro	Gly	Ile	Ser	Arg	Met	Asn	Asp
		35					40					45			
Leu	Thr	Ile	Ile	Gln	Thr	Thr	Gln	Gly	Phe	Cys	Arg	Tyr	Leu	Glu	Lys
	50				55					60					
Gln	Phe	Ser	Asp	Leu	Lys	Gln	Lys	Gly	Ile	Val	Ile	Ser	Phe	Asp	Ala
65				70					75					80	
Arg	Ala	His	Pro	Ser	Ser	Gly	Gly	Ser	Ser	Arg	Arg	Phe	Ala	Arg	Leu
			85						90				95		
Ala	Ala	Thr	Thr	Phe	Ile	Ser	Gln	Gly	Ile	Pro	Val	Tyr	Leu	Phe	Ser
		100						105					110		
Asp	Ile	Thr	Pro	Thr	Pro	Phe	Val	Pro	Phe	Thr	Val	Ser	His	Leu	Lys
	115					120						125			
Leu	Cys	Ala	Gly	Ile	Met	Ile	Thr	Ala	Ser	His	Asn	Pro	Lys	Gln	Asp
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Asn	Gly	Tyr	Lys	Val	Tyr	Trp	Asp	Asn	Gly	Ala	Gln	Ile	Ile	Ser	Pro
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His	Asp	Lys	Gly	Ile	Ser	Gln	Ala	Ile	Glu	Glu	Asn	Leu	Glu	Pro	Trp
		165						170						175	
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		180						185					190		
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Tyr	Cys	Phe	His	Arg	Ser	Val	Asn	Arg	Glu	Thr	Lys	Val	Lys	Phe	Val
	210					215					220				
His	Thr	Ser	Val	His	Gly	Val	Gly	His	Ser	Phe	Val	Gln	Ser	Ala	Phe
225				230					235					240	
Lys	Ala	Phe	Xaa	Pro	Cys	Ser	Ser	Xaa	Glu	Ala	Val	Pro	Glu	Gln	Lys

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<210> 4177

<211> 4763

<212> DNA

<213> Homo sapiens

<400> 4177

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120

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<210> 4178

<211> 398

<212> PRT

<213> Homo sapiens

<400> 4178

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 35 40 45
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 50 55 60
 Gly Gln His Tyr Asn Ile Ser Pro Gln Asp Leu Glu Thr Val Phe Pro
 65 70 75 80
 His Gly Leu Pro Pro Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu
 85 90 95
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 100 105 110
 Lys Asn Thr Ser Phe Ala Tyr Pro Ala Ile Arg Tyr Leu Leu Tyr Gly
 115 120 125
 Glu Lys Gly Thr Gly Lys Thr Leu Ser Leu Cys His Val Phe His Phe
 130 135 140
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 145 150 155 160

Trp Val Lys Asn Cys Arg Asp Leu Leu Gln Ser Ser Tyr Asn Lys Gln
 165 170 175
 Arg Phe Asp Gln Pro Leu Glu Ala Ser Thr Trp Leu Lys Asn Phe Lys
 180 185 190
 Thr Thr Asn Glu Arg Phe Leu Asn Gln Ile Lys Val Gln Glu Lys Tyr
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 Val Trp Asn Lys Arg Glu Leu Thr Glu Lys Gly Ser Pro Leu Gly Glu
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 Thr Leu Lys Arg Glu Asp Lys Ser Pro Ile Ala Pro Glu Glu Leu Ala
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 Lys Ala Tyr Leu Pro Gln Glu Leu Leu Gly Lys Glu Gly Phe Asp Ala
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 Phe Glu Ser Cys Ile Gln Tyr Tyr Leu Glu Asn Asn Trp Leu Gln His
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<210> 4179

<211> 2208

<212> DNA

<213> Homo sapiens

<400> 4179

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<210> 4180
 <211> 257
 <212> PRT
 <213> Homo sapiens

<400> 4180
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 35 40 45
 Val Leu Ala Thr Gly Ser Gly Ile Val Ile Ile Arg Ser Cys Asp Asp
 50 55 60
 Val Ile Thr Gly Arg His Trp Leu Ala Arg Glu Tyr Val Trp Phe Leu
 65 70 75 80
 Ile Pro Tyr Met Ile Tyr Asp Ser Tyr Ala Met Tyr Leu Cys Glu Trp
 85 90 95
 Cys Arg Thr Arg Asp Gln Asn Arg Ala Pro Ser Leu Thr Leu Arg Asn
 100 105 110
 Phe Leu Ser Arg Asn Arg Leu Met Ile Thr His His Ala Val Ile Leu
 115 120 125
 Phe Val Leu Val Pro Val Ala Gln Arg Leu Arg Gly Asp Leu Gly Asp
 130 135 140
 Phe Phe Val Gly Cys Ile Phe Thr Ala Glu Leu Ser Thr Pro Phe Val
 145 150 155 160
 Ser Leu Gly Arg Val Leu Ile Gln Leu Lys Gln Gln His Thr Leu Leu
 165 170 175
 Tyr Lys Val Asn Gly Ile Leu Thr Leu Ala Thr Phe Leu Ser Cys Arg

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Ile	Leu	Leu	Phe	Pro	Phe	Met	Tyr	Trp	Ser	Tyr	Gly	Arg	Gln	Gln	Gly
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Leu	Ser	Leu	Leu	Gln	Val	Pro	Phe	Ser	Ile	Pro	Phe	Tyr	Cys	Asn	Val
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<210> 4181

<211> 735

<212> DNA

<213> Homo sapiens

<400> 4181

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420

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Val Gly Gly Ile Ile Gly Gly	Ile Val Ala Gly Leu Val	Ser Asp Tyr
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Thr Asn Gly Arg Ala Thr Thr	Cys Cys Val Met Leu Ile	Leu Ala Ala
65	70	75
Pro Met Met Phe Leu Tyr Asn	Tyr Ile Gly Gln Asp Gly	Ile Ala Ser
85	90	95
Ser Ile Val Met Leu Ile Ile	Cys Gly Gly Leu Val Asn	Gly Pro Tyr
100	105	110
Ala Xaa Ile Thr Thr Ala Val	Ser Ala Asp Leu Gly Thr	His Lys Ser
115	120	125
Leu Lys Gly Asn Ala Lys Ala	Leu Ser Thr Val Thr Ala	Ile Ile Asp
130	135	140
Gly Thr Gly Ser Ile Gly Ala	Ala Leu Gly Pro Leu Leu	Ala Gly Leu
145	150	155
Ile Ser Pro Thr Gly Trp Asn	Asn Val Phe Tyr Met Leu	Ile Ser Ala
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Asp Val Leu Ala Cys Leu Leu	Leu Cys Arg Leu Val Tyr	Lys Glu Ile
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<210> 4183
 <211> 1129
 <212> DNA
 <213> Homo sapiens

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 780

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<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro
		35				40						45			
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr
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Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala
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Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser
			85					90						95	
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser
			100					105					110		
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp
		115					120					125			
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln
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Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg
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Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
				165					170					175	
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
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Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
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Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
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Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln
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Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
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Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro
			260					265					270		
Ile	Thr	Pro	Gln	Asp	Val	Asn	Arg	Pro	Leu	Asn	Ala	Ala	Gln	Cys	Leu

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Leu Gln Gln Asn Thr Ser	Val Ala Thr Lys Gln	Pro Gln Thr Ser Val
305	310	315
Val Gln Asn Gln Gln Ile	Ser Gln Gln Gly Pro	Ile Tyr Asp Glu
325	330	335
Val Glu Leu Asp Ala Leu	Ala Glu Ile Glu Arg	Ile Glu Arg Glu Ser
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Pro Leu Lys Lys Lys Lys		
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<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35					40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50				55					60					
Glu	Asn	Ile	Pro	Glu	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe	
65				70					75				80		
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
			85					90					95		
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
			100				105					110			
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
		115				120					125				
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
	130					135					140				
Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
145				150					155				160		
Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	Glu	Ser	Ala	Ile	Lys
			165					170					175		
Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
		180					185					190			
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
	195					200					205				
Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
	210				215						220				
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
225				230					235				240		
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

				245				250				255			
Pro	Asn	Met	Leu	Gly	Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val
				260				265				270			
Tyr	Glu	Thr	Leu	Lys	Asn	Ala	Trp	Leu	Gln	His	Tyr	Ala	Val	Asn	Ser
				275				280				285			
Ala	Asp	Pro	Gly	Val	Phe	Val	Leu	Leu	Ala	Cys	Gly	Thr	Met	Ser	Ser
				290				295				300			
Thr	Cys	Gly	Gln	Leu	Ala	Ser	Tyr	Pro	Leu	Ala	Leu	Val	Arg	Thr	Arg
				305				310				315			
Met	Gln	Ala	Gln	Ala	Ser	Ile	Glu	Gly	Ala	Pro	Glu	Val	Thr	Met	Ser
				325				330				335			
Ser	Leu	Phe	Lys	His	Ile	Leu	Arg	Thr	Glu	Gly	Ala	Phe	Gly	Leu	Tyr
				340				345				350			
Arg	Gly	Leu	Ala	Pro	Asn	Phe	Met	Lys	Val	Ile	Pro	Ala	Val	Ser	Ile
				355				360				365			
Ser	Tyr	Val	Val	Tyr	Glu	Asn	Leu	Lys	Ile	Thr	Leu	Gly	Val	Gln	Ser
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385															

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<210>-4187-- -- --
<211> 1087
<212> DNA
<213> Homo sapiens
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180
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240
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300
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360
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420
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480
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540
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600
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660
cccaaacact ttgggctttt ctacgccatg ggcacagccc tgatgatgga ggggctgctc
720
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780
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840

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 960
 tattcctatg taaaggcatg tgccgcagtg aagaaaacag tataattaag aaggggtccc
 1020
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 1080
 atcatga
 1087

<210> 4188

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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Pro	Arg	Val	Leu	Ala	Asp	Ser	Phe	Pro	Asp	Ser	Ser	Pro	Tyr	Glu	Gly
			20					25				30			
Tyr	Asn	Tyr	Gly	Ser	Phe	Glu	Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu
	35					40					45				
Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
	50					55				60					
Ser	Phe	Glu	Pro	Val	Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser
65					70					75				80	
Val	Glu	Glu	Asp	Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
			85					90					95		
Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
			100					105					110		
Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
	115						120					125			
Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
	130					135				140					
Ile	Thr	Tyr	Pro	Glu	Xaa	Gly	Gly	Cys	Thr	Arg	Gly	Ser	Arg	Asp	Ile
145					150					155				160	
Cys	Ser	Ser	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly	Asn	Leu	Ser	Ala
			165						170				175		
Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
			180					185					190		
Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile	Asn	His	Asn	Arg	Ala	Leu
	195					200						205			
Leu	Arg	Asn	Asp	Leu	Cys	Ala	Leu	Glu	Cys	Gly	Ile	Pro	Lys	His	Phe
	210					215				220					
Gly	Leu	Phe	Tyr	Ala	Met	Gly	Thr	Ala	Leu	Met	Met	Glu	Gly	Leu	Leu
225					230					235				240	
Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
			245						250					255	
Glu	Trp	Gly	Val	Leu	Leu	Phe	Trp	Leu	Asn	Leu	Gln	Gln	Gly	Pro	Ala
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<210> 4189

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 4189

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180
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240
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300
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360
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420
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480
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1440
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1560

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1570

<210> 4190

<211> 523

<212> PRT

<213> Homo sapiens

<400> 4190

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His	Ser	Thr	Ile	Tyr	Pro	Ser	Pro	Glu	Glu	Leu	Glu	Ala	Val	Gln	Asn
			20					25					30		
Met	Val	Ser	Thr	Val	Glu	Cys	Ala	Leu	Lys	His	Val	Ser	Asp	Trp	Leu
			35				40					45			
Asp	Glu	Thr	Asn	Lys	Gly	Thr	Lys	Thr	Glu	Gly	Glu	Thr	Glu	Val	Lys
			50			55					60				
Lys	Asp	Glu	Ala	Gly	Glu	Asn	Tyr	Ser	Lys	Asp	Gln	Gly	Gly	Arg	Thr
65					70					75				80	
Leu	Cys	Gly	Val	Met	Arg	Ile	Gly	Leu	Val	Ala	Lys	Gly	Leu	Leu	Ile
			85					90					95		
Lys	Asp	Asp	Met	Asp	Leu	Glu	Leu	Val	Leu	Met	Cys	Lys	Asp	Lys	Pro
			100					105					110		
Thr	Glu	Thr	Leu	Leu	Asn	Thr	Val	Lys	Asp	Asn	Leu	Pro	Ile	Gln	Ile
			115				120					125			
Gln	Lys	Leu	Thr	Glu	Glu	Lys	Tyr	Gln	Val	Glu	Gln	Cys	Val	Asn	Glu
			130			135					140				
Ala	Ser	Ile	Ile	Ile	Arg	Asn	Thr	Lys	Glu	Pro	Thr	Leu	Thr	Leu	Lys
145					150				155						160
Val	Ile	Leu	Thr	Ser	Pro	Leu	Ile	Arg	Asp	Glu	Leu	Glu	Lys	Lys	Asp
			165					170					175		
Gly	Glu	Asn	Val	Ser	Met	Lys	Asp	Pro	Pro	Asp	Leu	Leu	Asp	Arg	Gln
			180				185						190		
Lys	Cys	Leu	Asn	Ala	Leu	Ala	Ser	Leu	Arg	His	Ala	Lys	Trp	Phe	Gln
			195			200						205			
Ala	Arg	Ala	Asn	Gly	Leu	Lys	Ser	Cys	Val	Ile	Val	Leu	Arg	Ile	Leu
			210			215				220					
Arg	Asp	Leu	Cys	Asn	Arg	Val	Pro	Thr	Trp	Ala	Pro	Leu	Lys	Gly	Trp
225				230				235							240
Pro	Leu	Glu	Leu	Ile	Cys	Glu	Lys	Ser	Ile	Gly	Thr	Cys	Asn	Arg	Pro
			245					250					255		
Leu	Gly	Ala	Gly	Glu	Ala	Leu	Arg	Arg	Val	Met	Glu	Cys	Leu	Ala	Ser
			260				265					270			
Gly	Ile	Leu	Leu	Pro	Gly	Gly	Pro	Gly	Leu	His	Asp	Pro	Cys	Glu	Arg
			275			280						285			
Asp	Pro	Thr	Asp	Ala	Leu	Ser	Tyr	Met	Thr	Ile	Gln	Gln	Lys	Glu	Asp
			290			295				300					
Ile	Thr	His	Ser	Ala	Gln	His	Ala	Leu	Arg	Leu	Ser	Ala	Phe	Gly	Gln
305				310					315						320
Ile	Tyr	Lys	Val	Leu	Glu	Met	Asp	Pro	Leu	Pro	Ser	Ser	Lys	Pro	Phe
			325					330					335		
Gln	Lys	Tyr	Ser	Trp	Ser	Val	Thr	Asp	Lys	Glu	Gly	Ala	Gly	Ser	Ser

340	345	350
Ala Leu Lys Arg Pro Phe Glu Asp Gly Leu Gly Asp Asp Lys Asp Pro		
355	360	365
Asn Lys Lys Met Lys Arg Asn Leu Arg Lys Ile Leu Asp Ser Lys Ala		
370	375	380
Ile Asp Leu Met Asn Ala Leu Met Arg Leu Asn Gln Ile Arg Pro Gly		
385	390	395
Leu Gln Tyr Lys Leu Leu Ser Gln Ser Gly Pro Val His Ala Pro Val		
405	410	415
Phe Thr Met Ser Val Asp Val Asp Gly Thr Thr Tyr Glu Ala Ser Gly		
420	425	430
Pro Ser Lys Lys Thr Ala Lys Leu His Val Ala Val Lys Val Leu Gln		
435	440	445
Ala Met Gly Tyr Pro Thr Gly Phe Asp Ala Asp Ile Glu Cys Met Ser		
450	455	460
Ser Asp Glu Lys Arg Arg Gly Leu Lys Tyr Glu Leu Ile Ser Glu Thr		
465	470	475
Gly Gly Ser His Asp Lys Arg Phe Val Met Glu Val Glu Val Asp Gly		
485	490	495
Gln Lys Phe Arg Gly Ala Gly Pro Asn Lys Lys Val Ala Lys Ala Ser		
500	505	510
Ala Ala Leu Leu Ala Xaa Gly Glu Thr Val Phe		
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<210> 4191

<211> 1661

<212> DNA

<213> Homo sapiens

<400> 4191

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<210> 4192

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4192

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			20					25					30		
Trp	Arg	Ala	Val	Gln	Gly	Ile	Arg	Gly	Glu	Thr	Lys	Ser	Cys	Gln	Thr
		35				40					45				
Ala	Ser	Ile	Ala	Thr	Ala	Ser	Ala	Ser	Ala	Gln	Ala	Arg	Asn	His	Val
	50				55				60						
Asp	Ala	Gln	Val	Gln	Thr	Glu	Ala	Pro	Val	Pro	Val	Ser	Val	Gln	Pro
65				70					75				80		
Pro	Ser	Gln	Tyr	Asp	Ile	Pro	Arg	Leu	Ala	Phe	Leu	Arg	Arg	Val	
		85						90				95			
Glu	Ala	Met	Val	Ile	Arg	Glu	Leu	Asn	Lys	Asn	Trp	Gln	Ser	His	Ala
		100				105					110				
Phe	Asp	Gly	Phe	Glu	Val	Asn	Trp	Thr	Glu	Gln	Gln	Gln	Met	Val	Ser

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145	150	155
Tyr Gly Arg Leu Asp His Gly Asp Trp Ser Thr Leu Lys Ser Phe Val		
165	170	175
Cys Ala Trp Asn Leu Asp Arg Arg Asp Leu Arg Pro Gln Gln Pro Ser		
180	185	190
Ala Val Val Glu Val Pro Ser Ala Val Leu Cys Leu Ala Phe His Pro		
195	200	205
Thr Gln Pro Ser His Val Ala Gly Gly Leu Tyr Ser Gly Glu Val Leu		
210	215	220
Val Trp Asp Leu Ser Arg Leu Glu Asp Pro Leu Trp Arg Thr Gly		
225	230	235
Leu Thr Asp Asp Thr His Thr Asp Pro Val Ser Gln Val Val Trp Leu		
245	250	255
Pro Glu Pro Gly His Ser His Arg Phe Gln Val Leu Ser Val Ala Thr		
260	265	270
Asp Gly Lys Val Leu Leu Trp Gln Gly Ile Gly Val Gly Gln Leu Gln		
275	280	285
Leu Thr Glu Gly Phe Ala Leu Val Met Gln Gln Leu Pro Arg Ser Thr		
290	295	300
Lys Leu Lys Lys His Pro Arg Gly Glu Thr Glu Val Gly Ala Thr Ala		
305	310	315
Val Ala Phe Ser Ser Phe Asp Pro Arg Leu Phe Ile Leu Gly Thr Glu		
325	330	335
Gly Gly Phe Pro Leu Lys Cys Ser Leu Ala Ala Gly Glu Ala Ala Leu		
340	345	350
Thr Arg Met Pro Ser Ser Val Pro Leu Arg Ala Pro Ala Gln Phe Thr		
355	360	365
Phe Ser Pro His Gly Gly Pro Ile Tyr Ser Val Ser Cys Ser Pro Phe		
370	375	380
His Arg Asn Leu Phe Leu Ser Ala Gly Thr Asp Gly His Val His Leu		
385	390	395
Tyr Ser Met Leu Gln Ala Pro Pro Leu Thr Ser Leu Gln Leu Ser Leu		
405	410	415
Lys Tyr Leu Phe Ala Val Arg Trp Ser Pro Val Arg Pro Leu Val Phe		
420	425	430
Ala Ala Ala Ser Gly Lys Gly Asp Val Gln Leu Phe Asp Leu Gln Lys		
435	440	445
Ser Ser Gln Lys Pro Thr Val Leu Ile Lys Gln Thr Gln Asp Glu Ser		
450	455	460
Pro Val Tyr Cys Leu Glu Phe Asn Ser Gln Gln Thr Gln Leu Leu Ala		
465	470	475
Ala Gly Asp Ala Gln Gly Thr Val Lys Val Trp Gln Leu Ser Thr Glu		
485	490	495
Phe Thr Glu Gln Gly Pro Arg Glu Ala Glu Asp Leu Asp Cys Leu Ala		
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<210> 4193

<211> 6439

<212> DNA

<213> Homo sapiens

<400> 4193

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<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 4202
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 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr
 35 40 45
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser
 50 55 60
 Leu Leu Ala Ser Gly Xaa Ala Ala Leu Ala Cys Val Phe Leu Gly Val

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		100						105						110	
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 <213> Homo sapiens

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 <213> Homo sapiens

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 Tyr Thr Val Val Pro Phe Val Leu Leu Ser Ile Lys Pro Ser Leu Thr
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<210> 4205
 <211> 6523
 <212> DNA
 <213> Homo sapiens

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<210> 4206
<211> 829
<212> PRT
<213> Homo sapiens

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Ser Val Ile Val Glu Val Arg Ser Asp Asp Asp Lys Asp Glu Asp Thr			
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His Ser Arg Lys Ser Thr Val Thr Asp Glu Ser Glu Met Gln Asp Met			
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Met Thr Arg Gly Asn Leu Gly Leu Leu Glu Gln Ala Ile Ala Leu Lys			
85	90	95	
Ala Glu Gln Val Arg Thr Val Cys Glu Pro Gly Cys Pro Pro Ala Glu			
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Gln Ser Gln Leu Gly Leu Gly Glu Pro Gly Lys Ala Ala Lys Pro Leu			
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Asp Thr Val Arg Lys Ser Tyr Tyr Ser Lys Asp Pro Ser Arg Ala Glu			
130	135	140	
Lys Arg Glu Ile Lys Cys Pro Thr Pro Gly Cys Asp Gly Thr Gly His			
145	150	155	160
Val Thr Gly Leu Tyr Pro His His Arg Ser Leu Ser Gly Cys Pro His			
165	170	175	
Lys Asp Arg Ile Pro Pro Glu Ile Leu Ala Met His Glu Asn Val Leu			
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Lys Cys Pro Thr Pro Gly Cys Thr Gly Gln Gly His Val Asn Ser Asn			
195	200	205	
Arg Asn Thr His Arg Ser Leu Ser Gly Cys Pro Ile Ala Ala Ala Glu			
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Lys Leu Ala Lys Ser His Glu Lys Gln Gln Pro Gln Thr Gly Asp Pro			
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Ser Lys Ser Ser Ser Asn Ser Asp Arg Ile Leu Arg Pro Met Cys Phe			
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Val Lys Gln Leu Glu Val Pro Pro Tyr Gly Ser Tyr Arg Pro Asn Val			
260	265	270	
Ala Pro Ala Thr Pro Arg Ala Asn Leu Ala Lys Glu Leu Glu Lys Phe			
275	280	285	
Ser Lys Val Thr Phe Asp Tyr Ala Ser Phe Asp Ala Gln Val Phe Gly			
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Lys Arg Met Leu Ala Pro Lys Ile Gln Thr Ser Glu Thr Ser Pro Lys			
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Ala Phe Gln Cys Phe Asp Tyr Ser Gln Asp Ala Glu Ala Ala His Met			
325	330	335	
Ala Ala Thr Ala Ile Leu Asn Leu Ser Thr Arg Cys Trp Glu Met Pro			
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Glu Asn Leu Ser Thr Lys Pro Gln Asp Leu Pro Ser Lys Ser Val Asp			
355	360	365	
Ile Glu Val Asp Glu Asn Gly Thr Leu Asp Leu Ser Met His Lys His			
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Arg Lys Arg Glu Asn Ala Phe Pro Ser Ser Ser Ser Cys Ser Ser Ser			
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Pro Gly Val Lys Ser Pro Asp Ala Ser Gln Arg His Ser Ser Thr Ser			
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Ala Pro Ser Ser Ser Met Thr Ser Pro Gln Ser Ser Gln Ala Ser Arg			
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Gln Asp Glu Trp Asp Arg Pro Leu Asp Tyr Thr Lys Pro Ser Arg Leu			

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Arg Lys Tyr Pro Gly Glu Val Thr Leu Thr Asn Phe Lys Leu Lys Phe				
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Pro Gly Cys Asp Gly Ser Gly His Ala Asn Gly Ser Phe Leu Thr His				
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Arg Ser Leu Ser Gly Cys Pro Arg Ala Thr Phe Ala Gly Lys Lys Gly				
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Lys Leu Ser Gly Asp Glu Val Leu Ser Pro Lys Phe Lys Thr Ser Asp				
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Val Leu Glu Asn Asp Glu Glu Ile Lys Gln Leu Asn Gln Glu Ile Arg				
705		710		720
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	725		730	735
Gln Ser Gln Ile Ser Ser Met Glu Lys Asn Leu Lys Asn Ile Glu Glu				
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Glu Asn Lys Leu Ile Glu Glu Gln Asn Glu Ala Leu Phe Leu Glu Leu				
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Ser Gly Leu Ser Gln Ala Leu Ile Gln Ser Leu Ala Asn Ile Arg Leu				
	770		775	780
Pro His Met Glu Pro Ile Cys Glu Gln Asn Phe Asp Ala Tyr Val Ser				
785		790		800
Thr Leu Thr Asp Met Tyr Ser Asn Gln Asp Pro Glu Asn Lys Asp Leu				
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<211> 1016

<212> DNA

<213> Homo sapiens

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<210> 4208

<211> 193

<212> PRT

<213> Homo sapiens

<400> 4208

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			20					25					30		
Ile	Asp	Arg	Arg	Thr	Ser	Thr	Pro	Asn	Ser	Arg	Ile	Gln	Arg	Ala	Thr
			35					40					45		
Thr	Val	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Leu	Cys	Thr	Cys	Thr	Glu	Pro
			50			55					60				
Ile	Arg	Lys	Val	Pro	Val	Ser	Lys	Thr	Pro	Lys	Lys	Thr	His	Ser	Asp
65					70					75				80	
Ala	Lys	Lys	Gly	Gln	Asn	Arg	Ser	Ser	Asn	Tyr	Leu	Ser	Cys	Arg	Thr

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<210> 4210

<211> 863

<212> PRT

<213> Homo sapiens

<400> 4210

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 20 25 30
 Tyr Glu Glu Glu Ile Met Arg Asn Gln Phe Ser Val Lys Cys Trp Leu
 35 40 45
 Arg Tyr Ile Glu Phe Lys Gln Gly Ala Pro Lys Pro Arg Leu Asn Gln
 50 55 60
 Leu Tyr Glu Arg Ala Leu Lys Leu Leu Pro Cys Ser Tyr Lys Leu Trp
 65 70 75 80
 Tyr Arg Tyr Leu Lys Ala Arg Arg Ala Gln Val Lys His Arg Cys Val
 85 90 95
 Thr Asp Pro Ala Tyr Glu Asp Val Asn Asn Cys His Glu Arg Ala Phe
 100 105 110
 Val Phe Met His Lys Met Pro Arg Leu Trp Leu Asp Tyr Cys Gln Phe
 115 120 125
 Leu Met Asp Gln Gly Arg Val Thr His Thr Arg Arg Thr Phe Asp Arg
 130 135 140
 Ala Leu Arg Ala Leu Pro Ile Thr Gln His Ser Arg Ile Trp Pro Leu
 145 150 155 160
 Tyr Leu Arg Phe Leu Arg Ser His Pro Leu Pro Glu Thr Ala Val Arg
 165 170 175
 Gly Tyr Arg Arg Phe Leu Lys Leu Ser Pro Glu Ser Ala Glu Glu Tyr
 180 185 190
 Ile Glu Tyr Leu Lys Ser Ser Asp Arg Leu Asp Glu Ala Ala Gln Arg
 195 200 205
 Leu Ala Thr Val Val Asn Asp Glu Arg Phe Val Ser Lys Ala Gly Lys
 210 215 220
 Ser Asn Tyr Gln Leu Trp His Glu Leu Cys Asp Leu Ile Ser Gln Asn
 225 230 235 240
 Pro Asp Lys Val Gln Ser Leu Asn Val Asp Ala Ile Ile Arg Gly Gly
 245 250 255
 Leu Thr Arg Phe Thr Asp Gln Leu Gly Lys Leu Trp Cys Ser Leu Ala
 260 265 270
 Asp Tyr Tyr Ile Arg Ser Gly His Phe Glu Lys Ala Arg Asp Val Tyr
 275 280 285
 Glu Glu Ala Ile Arg Thr Val Met Thr Val Arg Asp Phe Thr Gln Val
 290 295 300
 Phe Asp Ser Tyr Ala Gln Phe Glu Glu Ser Met Ile Ala Ala Lys Met
 305 310 315 320
 Glu Thr Ala Ser Glu Leu Gly Arg Glu Glu Glu Asp Asp Val Asp Leu
 325 330 335
 Glu Leu Arg Leu Ala Arg Phe Glu His Leu Ile Ser Arg Arg Pro Leu

	340						345						350					
His	Leu	Ser	Ser	Val	Leu	Leu	Arg	Gln	Asn	Pro	His	His	Val	His	Glu			
		355					360					365						
Trp	His	Lys	Arg	Val	Ala	Leu	His	Gln	Gly	Arg	Pro	Arg	Glu	Ile	Ile			
		370					375					380						
Asn	Thr	Tyr	Thr	Glu	Ala	Val	Gln	Thr	Val	Asp	Pro	Phe	Lys	Ala	Thr			
385						390				395					400			
Gly	Lys	Pro	His	Thr	Leu	Trp	Val	Ala	Phe	Ala	Lys	Phe	Tyr	Glu	Asp			
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Asn	Gly	Gln	Leu	Asp	Asp	Ala	Arg	Val	Ile	Leu	Glu	Lys	Ala	Thr	Lys			
						420				425					430			
Val	Asn	Phe	Lys	Gln	Val	Asp	Asp	Leu	Ala	Ser	Val	Trp	Cys	Gln	Cys			
						435						445						
Gly	Glu	Leu	Glu	Leu	Arg	His	Glu	Asn	Tyr	Asp	Glu	Ala	Leu	Arg	Leu			
						455						460						
Leu	Arg	Lys	Ala	Thr	Ala	Leu	Pro	Pro	Pro	Gly	Arg	Val	Phe	Asp	Gly			
465						470					475				480			
Ser	Glu	Pro	Val	Gln	Asn	Arg	Val	Tyr	Lys	Ser	Leu	Lys	Val	Trp	Ser			
						485									495			
Met	Leu	Ala	Asp	Leu	Glu	Glu	Ser	Leu	Gly	Thr	Phe	Gln	Ser	Thr	Lys			
						500				505					510			
Ala	Val	Tyr	Asp	Arg	Ile	Leu	Asp	Leu	Arg	Ile	Ala	Thr	Pro	Gln	Ile			
						515						525						
Val	Ile	Asn	Tyr	Ala	Met	Phe	Leu	Glu	Glu	His	Lys	Tyr	Phe	Glu	Glu			
						535						540						
Ser	Phe	Lys	Ala	Tyr	Glu	Arg	Gly	Ile	Ser	Leu	Phe	Lys	Trp	Pro	Asn			
545						550					555				560			
Val	Ser	Asp	Ile	Trp	Ser	Thr	Tyr	Leu	Thr	Lys	Phe	Ile	Ala	Arg	Tyr			
						565									575			
Gly	Gly	Arg	Lys	Leu	Glu	Arg	Ala	Arg	Asp	Leu	Phe	Glu	Gln	Ala	Leu			
						580									590			
Asp	Gly	Cys	Pro	Pro	Lys	Tyr	Ala	Lys	Thr	Leu	Tyr	Leu	Leu	Tyr	Ala			
						595						605						
Gln	Leu	Glu	Glu	Glu	Trp	Gly	Leu	Ala	Arg	His	Ala	Met	Ala	Val	Tyr			
						610						620						
Glu	Arg	Ala	Thr	Arg	Ala	Val	Glu	Pro	Ala	Gln	Gln	Tyr	Asp	Met	Phe			
625						630					635				640			
Asn	Ile	Tyr	Ile	Lys	Arg	Ala	Ala	Glu	Ile	Tyr	Gly	Val	Thr	His	Thr			
						645									655			
Arg	Gly	Ile	Tyr	Gln	Lys	Ala	Ile	Glu	Val	Leu	Ser	Asp	Glu	His	Ala			
						660									670			
Arg	Glu	Met	Cys	Leu	Arg	Phe	Ala	Asp	Met	Glu	Cys	Lys	Leu	Gly	Glu			
						675						685						
Ile	Asp	Arg	Ala	Arg	Ala	Ile	Tyr	Ser	Phe	Cys	Ser	Gln	Ile	Cys	Asp			
						690						700						
Pro	Arg	Thr	Thr															

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      770              775              780
Glu Gln Leu Ala Ala Glu Ala Glu Arg Asp Gln Pro Leu Arg Ala Gln
785              790              795              800
Ser Lys Ile Leu Phe Val Arg Ser Asp Ala Ser Arg Glu Glu Leu Ala
      805              810              815
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp
      820              825              830
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu
      835              840              845
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp
      850              855              860

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<210> 4211
 <211> 456
 <212> DNA
 <213> Homo sapiens

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<400> 4211
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120
agctggaaaa gagacgctcc aactgcgac gacaaccaac acatgggaca agctgagaaa
180
gtgcactcag gacttcgcgt gatgtcacca ccatggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttta aaagacgtaa
300
aattacactt tcactactac tggttcctat ccttggtgcag taaagtacaa cctggccagg
360
gtttaccagc tctacctgca actgagtcag aaaggcaaag tagtcagctt tgtccatgct
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456

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<210> 4212
 <211> 81
 <212> PRT
 <213> Homo sapiens

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<400> 4212
Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg
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Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg
20      25      30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala
35      40      45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg
50      55      60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp
65      70      75      80
Pro

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<210> 4213
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 4213
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 ttcccggaacc cgccccggcc gccctggtac gcctgctcgt cggccttctg ggccgcggcg
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 240
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 383

<210> 4214
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4214
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 Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val
 20 25 30
 Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro
 35 40 45
 Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu
 50 55 60
 Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His
 65 70 75 80
 Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser
 85 90 95
 Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu
 100 105 110
 Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu
 115 120 125

<210> 4215
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 4215
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 120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatcctga tccagggcctt gacagaagat atggtgactg ttttaatccg ggcctgcgtg
 240
 agcatgctgg gagtcctgt ggaccagat actttgcatg ccaccctttg tttctgtttg
 300
 agggtcactc ggggccccca attagccatg atgtttgcag aactgaagaa taccgcgatg
 360
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 420
 ttaagacaca tcattgagga cccctgtacc cttcgtcata ccattggaaaa ggttggtcgc
 480
 tcagcagcta caagtggagc tggtagcact acctctggtg ttgtgtctgg cagcctcggc
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 660
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 780
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<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

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			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35				40					45				
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
		50				55					60				
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65					70					75				80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85						90					95	
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
			100					105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115					120					125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
		130				135						140			
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr

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145          150          155          160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
          165          170          175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
          180          185          190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
          195          200          205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
          210          215          220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
          225          230          235          240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
          245          250          255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
          260          265          270Met Gly Asp Asp
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
          275          280          285

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<210> 4217

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4217

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420
cacacacgcc tgtgcagctc cacagggggc tggggcagga gacagatctg aatacacata
480
ccacctgtg ctgtgagtgg ccactcccat ccaacaactg agactttctg ttactgggccc
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600
cagtcctccc ctggcgcg
619

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<210> 4218

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4218

Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

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      20           25           30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr
      35           40           45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser
      50           55           60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro
      65           70           75           80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro
      85           90           95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu
      100          105          110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln
      115          120          125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr
      130          135          140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn
      145          150          155

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<210> -4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

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120
ggccatgggg aagacggccc tgttctacca cagcggcggc agcagcggct acgagagcgt
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540
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660
gacttggagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg
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774

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<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220

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Xaa Gly Arg Ala Pro Ala Pro Val Ala Leu Gln Gln Asp His Ala Pro
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Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
 20           25           30
Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35           40           45
Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50           55           60
Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65           70           75           80
Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85           90           95
Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
 100          105          110
Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
 115          120          125
Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
 130          135          140
Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
 145          150          155          160
Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
 165          170          175
Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
 180          185          190
Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
 195          200          205
Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
 210          215          220
Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
 225          230          235          240
Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
 245          250          255
Met Leu

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<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221

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aatgtgaaga ggattaaaga ataaagaaaa aacaaaaaag tcttatacta aaataagaaa
60
tcagcccccattctggcacag ttctcatgca gaattattgca cccagtgtga actaacgcta
120
gaagcttcaa actgtataaa tttaaagtga ttgcatatt ataaaaataa agataaacat
180
atacatattt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
240

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ttaacagaac tgaatctga gtgetctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct
 360
 tcaagtagcg cgctccttgg aggatcacag ttctgaggtt caggttgtaa aacatttgct
 420
 ccatgtttct gtccatgctt cccccacca cccctccccc acctcttccc cagtcgtcca
 480
 aaaagcacc tgcaagcacg cgttgtcact caagttcaca gaacacgctg gggtgagtg
 540
 agagggtctg ccagggtgaa aagatggctc aggtgttcag atgctctctt ttctccatgg
 600
 aaattccaca gccacaaacg tcaactggtt ctgtgctttt caccaacatt cttcccttaa
 660
 aaattggtgc tctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga
 720
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 780
 atcacagtc
 789

<210> 4222
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4222
 Met Ala Tyr Met Cys Thr Glu Asn Lys Ile Pro Glu Lys Pro Phe Asp
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 Phe Phe Phe Phe Ser Phe Leu Gln Val Ala Arg Ser Leu Glu Asp His
 20 25 30
 Ser Ser Glu Val Gln Val Val Lys His Leu Leu His Val Leu Val His
 35 40 45
 Ala Ser Pro His His Pro Leu Pro Thr Ser Ser Pro Val Val Gln Lys
 50 55 60
 Ala Pro Cys Lys His Ala Leu Ser Leu Lys Phe Thr Glu His Ala Gly
 65 70 75 80
 Val Ser Ala Glu Gly Leu Pro Gly Ala Lys Asp Gly Pro Gly Val Gln
 85 90 95
 Met Leu Ser Phe Leu His Gly Asn Ser Thr Ala Thr Asn Val Thr Gly
 100 105 110
 Phe Cys Ala Phe His Gln His Ser Ser Leu Lys Asn Trp Cys Ser
 115 120 125

<210> 4223
 <211> 852
 <212> DNA
 <213> Homo sapiens

<400> 4223
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 gagggcgtgg cctatttgca ctcaactcaag atcgtgcaca ggaatctcaa gctggagaac
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgactt ccatctggct
 180
 aagctagaaa atggcctcat caaggagccc tgtgggaccc cgaagattt tgcccccaa
 240
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcatcatg
 300
 tacatcctgc tttcaggcaa tccacctttc tatgaggagg tggaagaaga tgattatgag
 360
 aaccatgata agaatctctt cgcgaagatc ctggctgggtg actatgagtt tgactctcca
 420
 tattgggatg atatttcgca ggcagccaaa gacctggtca caaggctgat ggaggtggag
 480
 caagaccagc ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct
 540
 gcttctgata agaacatcaa ggatggtgct tgtgcccaga ttgaaaagaa ctttgccagg
 600
 gccaaagtga agaaggctgt ccgagtgacc accctcatga aacgggtccg ggcaccagag
 660
 cagtcacaga cggctgcagc ccagtcggcc tcagccacag aactgccac cccgggggct
 720
 gcagaccgta gtgccacccc agccacagat ggaagtgcc cccagccac tgatggcagt
 780
 gtcacccag ccaccgatgg aagcatcact ccagccattg atgggagtgt caccacagcc
 840
 actgacagga gc
 852

<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1			5					10					15		
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
		20					25					30			
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35				40						45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
	50				55			60							
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65				70				75						80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
			85					90						95	
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
			100					105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
		115				120						125			
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
	130					135					140				
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155			160		
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

```

                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
                275                280

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<210> 4225
 <211> 470
 <212> DNA
 <213> Homo sapiens

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<400> 4225
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acgccaaacct tccctgaaat atcctatgat gtgtatgttt atacagacat gagacctggg
120
gacagggtcc tacagttaac tgcagtcgac gcagacgaag ggtcaaatgg ggagatcaca
180
tatgaaatcc ttgttggggc tcaggggagac ttcacatca ataaaacaac agggcttacc
240
accatcgctc caggggtgga aatgatagtc gggcggactt acgcactccc ggtccaagca
300
gcggataatg ctctcctcgc aaagcaaagg actcccatct gcactgtgta tattgaagtg
360
cttccaccaa ataatcaaag cctcctcgc tcccacagc tgatgtatag ccttgaaatt
420
agtgaagcca tgagggttgg tgctgtttta ttaaatctac aggcaactga
470

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<210> 4226
 <211> 156
 <212> PRT
 <213> Homo sapiens

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<400> 4226
Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp
1      5      10      15
Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
20     25     30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
35     40     45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
50     55     60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

```

65		70		75		80									
Thr	Ile	Ala	Pro	Gly	Val	Glu	Met	Ile	Val	Gly	Arg	Thr	Tyr	Ala	Leu
		85							90					95	
Pro	Val	Gln	Ala	Ala	Asp	Asn	Ala	Pro	Pro	Ala	Lys	Gln	Arg	Thr	Pro
		100						105					110		
Ile	Cys	Thr	Val	Tyr	Ile	Glu	Val	Leu	Pro	Pro	Asn	Asn	Gln	Ser	Pro
		115					120					125			
Pro	Arg	Phe	Pro	Gln	Leu	Met	Tyr	Ser	Leu	Glu	Ile	Ser	Glu	Ala	Met
	130					135					140				
Arg	Val	Gly	Ala	Val	Leu	Leu	Asn	Leu	Gln	Ala	Thr				
145					150					155					

<210> 4227

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 4227

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~~attataaatt-taacttctaa_catgttttat_ggttaaaatt gtactttttt cctttagcga~~
120

cattcaaatg catcacaatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta
180

caaattcaga acagtacaga gcccagacccc ctgcttgcca ctctagaaaa gcaagaaatt
240

atagagcagc ttctatcaaa tttttccac aaggagaaaa atgagtcagc catagtcagt
300

gcaatccaga tattgtctgac ttactttgag acacgacgac caacatttga aggccatata
360

gagatctgcc caccaggcat gagccattca gcttggtcag taaacaagag tgttctagaa
420

gccatcagag gaagacttgg atcttttcat gaactcctgc tggagccacc caagaaaagt
480

gtgatgaaga ccacatgggg tgtgctggat cctcctgtgg ggaatacccg gttgaatgtc
540

attaggttga tatccagcct gcttcaaacc aataccagca gtataaatgg ggaccttatg
600

gagctgaata gcattggagt catattgaac atgttcttca agtatacatg gaataacttt
660

ttgcatacac aagtggaaat ttgtattgca ctgattcttg caagtccttt tgaaaacaca
720

gaaaatgccca caattaccga tcaagactcc actggtgata atttgttatt aaaacatctt
780

ttccaaaaat gtcaattaat agaacgaata cttgaagcct gggaaatgaa tgagaagaaa
840

caggctgagg gaggaagacg gcatgggttac atgggacacc taacgaggat agctaactgt
900

atcgtgcaca gcactgacaa gggccccaac agtgcattag tgcagcagct tatcaaaggt
960

aagttatttg tgaaatttga attacatttt tgttgggttg caggaaggat ttaaggggtc
1020

agtagaaatg catgtagcat ttttaatagt gatttgtggg acttctttat atttggcaaa
1080

ttatgtattt gaatgaggtt cttgagaatg tgtttgaaca gggttgtttt ttgggttgta
 1140
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 1199

<210> 4228
 <211> 298
 <212> PRT
 <213> Homo sapiens

<400> 4228
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 Arg Asp Gln Met Leu Gln Ile Gln Asn Ser Thr Glu Pro Asp Pro Leu
 20 25 30
 Leu Ala Thr Leu Glu Lys Gln Glu Ile Ile Glu Gln Leu Leu Ser Asn
 35 40 45
 Ile Phe His Lys Glu Lys Asn Glu Ser Ala Ile Val Ser Ala Ile Gln
 50 55 60
 Ile Leu Leu Thr Leu Leu Glu Thr Arg Arg Pro Thr Phe Glu Gly His
 65 70 75 80
 Ile Glu Ile Cys Pro Pro Gly Met Ser His Ser Ala Cys Ser Val Asn
 85 90 95
 Lys Ser Val Leu Glu Ala Ile Arg Gly Arg Leu Gly Ser Phe His Glu
 100 105 110
 Leu Leu Leu Glu Pro Pro Lys Lys Ser Val Met Lys Thr Thr Trp Gly
 115 120 125
 Val Leu Asp Pro Pro Val Gly Asn Thr Arg Leu Asn Val Ile Arg Leu
 130 135 140
 Ile Ser Ser Leu Leu Gln Thr Asn Thr Ser Ser Ile Asn Gly Asp Leu
 145 150 155 160
 Met Glu Leu Asn Ser Ile Gly Val Ile Leu Asn Met Phe Phe Lys Tyr
 165 170 175
 Thr Trp Asn Asn Phe Leu His Thr Gln Val Glu Ile Cys Ile Ala Leu
 180 185 190
 Ile Leu Ala Ser Pro Phe Glu Asn Thr Glu Asn Ala Thr Ile Thr Asp
 195 200 205
 Gln Asp Ser Thr Gly Asp Asn Leu Leu Leu Lys His Leu Phe Gln Lys
 210 215 220
 Cys Gln Leu Ile Glu Arg Ile Leu Glu Ala Trp Glu Met Asn Glu Lys
 225 230 235 240
 Lys Gln Ala Glu Gly Gly Arg Arg His Gly Tyr Met Gly His Leu Thr
 245 250 255
 Arg Ile Ala Asn Cys Ile Val His Ser Thr Asp Lys Gly Pro Asn Ser
 260 265 270
 Ala Leu Val Gln Gln Leu Ile Lys Gly Lys Leu Phe Val Lys Phe Glu
 275 280 285
 Leu His Phe Cys Trp Val Ala Gly Arg Ile
 290 295

<210> 4229
 <211> 1612
 <212> DNA
 <213> Homo sapiens

<400> 4229
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120
ggaaacatga agtcggtcct cacctggaag caccggaagg agcacgccat cccccacgtg
180
gttctggggc ggaacctccc cgggggagcc tggcactcca tcgaaggctc catggtgatc
240
ctgagccaag gccagtggat ggggctcccg gacctggagg tcaaggactg gatgcagaag
300
aagcgaagag gtcttcgcaa cagccgggcc actgccgggg acatcgccca ctactacagg
360
gactacgtgg tcaagaaggg tctggggcat aactttgtgt ccggtgctgt agtcacagcc
420
gtggagtggg ggacccccga tcccagcagc tgtggggccc aggactccag cccctcttc
480
caggtgagcg gcttcctgac caggaaccag gccagcagc ccttctcgct gtggggcccg
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600
gcctgacct tcatccacca tgagctgtct gcctggagg ccgccacaag ggtgggtgcg
660
gtgaccccg cctcagacct tgtcctcatc attggcgcg ggctgtcagc ggccgacgcc
720
gtcctctacg cccgccacta caacatcccg gtgatccatg ccttcgcccg ggccgtggac
780
gaccttgcc tgggtgtcaa ccagctgcc aagatgctgt accccgagta ccacaagggtg
840
caccagatga tgcgggagca gtccatcctg tcgccagcc cctatgaggg ttaccgcagc
900
ctccccagc accagctgct gtgcttcaag gaagactgcc aggccgtgtt ccaggacctc
960
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1020
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1080
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1140
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1200
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1260
gccagaccg ctggctccca ggccctgaga ggacagagat gaccacatcc ctgctggatg
1320
caggaccct ccaaagatgc cccggggagg ggtgtcagcc cacgttgctg gcctttgggg
1380
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1440
agaccagtgt gtgagggtgt aacagcgcc gcagcagggg gttggcctag acctgggatt
1500
tgtggggaaa gctgctggtg tgaccagctg agcaccagc caggagacct gcagccctgc
1560

gccttccaga agcaggtccc aaataaagcc agtgcccacc tgaaaaaaaa aa
1612

<210> 4230

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4230

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Leu	Glu	Gly	Arg	Ser	Gln	Ser	Pro	Val	Ala	Leu	Leu	Phe	Asp	Ala	Leu	20	25	30	
Leu	Arg	Pro	Asp	Thr	Asp	Phe	Gly	Gly	Asn	Met	Lys	Ser	Val	Leu	Thr	35	40	45	
Trp	Lys	His	Arg	Lys	Glu	His	Ala	Ile	Pro	His	Val	Val	Leu	Gly	Arg	50	55	60	
Asn	Leu	Pro	Gly	Gly	Ala	Trp	His	Ser	Ile	Glu	Gly	Ser	Met	Val	Ile	65	70	75	80
Leu	Ser	Gln	Gly	Gln	Trp	Met	Gly	Leu	Pro	Asp	Leu	Glu	Val	Lys	Asp	85	90	95	
Trp	Met	Gln	Lys	Lys	Arg	Arg	Gly	Leu	Arg	Asn	Ser	Arg	Ala	Thr	Ala	100	105	110	
Gly	Asp	Ile	Ala	His	Tyr	Tyr	Arg	Asp	Tyr	Val	Val	Lys	Lys	Gly	Leu	115	120	125	
Gly	His	Asn	Phe	Val	Ser	Gly	Ala	Val	Val	Thr	Ala	Val	Glu	Trp	Gly	130	135	140	
Thr	Pro	Asp	Pro	Ser	Ser	Cys	Gly	Ala	Gln	Asp	Ser	Ser	Pro	Leu	Phe	145	150	155	160
Gln	Val	Ser	Gly	Phe	Leu	Thr	Arg	Asn	Gln	Ala	Gln	Gln	Pro	Phe	Ser	165	170	175	
Leu	Trp	Ala	Arg	Asn	Val	Val	Leu	Ala	Thr	Gly	Thr	Phe	Asp	Ser	Pro	180	185	190	
Ala	Arg	Leu	Gly	Ile	Pro	Gly	Glu	Ala	Leu	Pro	Phe	Ile	His	His	Glu	195	200	205	
Leu	Ser	Ala	Leu	Glu	Ala	Ala	Thr	Arg	Val	Gly	Ala	Val	Thr	Pro	Ala	210	215	220	
Ser	Asp	Pro	Val	Leu	Ile	Ile	Gly	Ala	Gly	Leu	Ser	Ala	Ala	Asp	Ala	225	230	235	240
Val	Leu	Tyr	Ala	Arg	His	Tyr	Asn	Ile	Pro	Val	Ile	His	Ala	Phe	Arg	245	250	255	
Arg	Ala	Val	Asp	Asp	Pro	Gly	Leu	Val	Phe	Asn	Gln	Leu	Pro	Lys	Met	260	265	270	
Leu	Tyr	Pro	Glu	Tyr	His	Lys	Val	His	Gln	Met	Met	Arg	Glu	Gln	Ser	275	280	285	
Ile	Leu	Ser	Pro	Ser	Pro	Tyr	Glu	Gly	Tyr	Arg	Ser	Leu	Pro	Arg	His	290	295	300	
Gln	Leu	Leu	Cys	Phe	Lys	Glu	Asp	Cys	Gln	Ala	Val	Phe	Gln	Asp	Leu	305	310	315	320
Glu	Gly	Val	Glu	Lys	Val	Phe	Gly	Val	Ser	Leu	Val	Leu	Val	Leu	Ile	325	330	335	
Gly	Ser	His	Pro	Asp	Leu	Ser	Phe	Leu	Pro	Gly	Ala	Gly	Ala	Asp	Phe	340	345	350	
Ala	Val	Asp	Pro	Asp	Gln	Pro	Leu	Ser	Ala	Lys	Arg	Asn	Pro	Ile	Asp				

355	360	365
Val Asp Pro Phe Thr Tyr Gln Ser Thr Arg Gln Glu Gly Leu Tyr Ala		
370	375	380
Met Gly Pro Leu Ala Gly Asp Asn Phe Val Arg Phe Val Gln Gly Gly		
385	390	395
Ala Leu Ala Val Ala Ser Ser Leu Leu Arg Lys Glu Thr Arg Lys Pro		
405	410	415
Pro		

<210> 4231
 <211> 1588
 <212> DNA
 <213> Homo sapiens

<400> 4231
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 120
 gagctggaaa atctcaagag caaactcgta gaagtaattg aagaagtaaa taaagttaaa
 180
 caagaaaaga ctgttttaaa ttcagaagtt cttgaacaga gaaaagtctt agaaaaatgc
 240
 aatagagtgt ccatgttagc tgtagaagag tatgaggaga tgcaagtaaa cctggagctg
 300
 gagaaggacc ttcgaaagaa agcagagtca ttgcccgaag agatgttcct tgagccaaac
 360
 cagggtaaaa agacaaagcc cccctttggg cggcagagtt ccacctctga tcagcagtta
 420
 gcttttagacg aaaatgcaaa actcaccag caacttgaag aagagagaat tcagcatcaa
 480
 caaaagggtca aagaattaga agagcaacta gaaaatgaaa cactccacaa agaaatacac
 540
 aacctcaaac agcaactgga gcttctagag gaagataaaa aggaattgga attgaaatat
 600
 cagaattctg aagagaaagc cagaaattta aagcactctg ttgatgaact ccagaaacga
 660
 gtgaaccagt ctgagaattc agtacctcca ccacctctc ctccaccacc acttccccct
 720
 ccacctccca atcctatccg atccctcatg tccatgatcc ggaaacgac ccacccagc
 780
 ggcagtgggtg ctaagaaaga aaaggcaact caaccagaaa caactgaaga agtcacagat
 840
 cttaaagaggc aagcagttga agagatgatg gatagaatta aaaaggaggat tcatcttaga
 900
 cccgttaatc agacagccag accgaagaca aagccagaat cttegaaagg ctgcgaaagt
 960
 gcagtggatg aactaaaagg aatactgggg acacttaaca aatccactag ttcaagaagc
 1020
 ttaaaatccc ttgacctga aaacagtga actgagttag aaaggatttt gcgtcgcaga
 1080
 aaggtagacag cagaagcaga tagcagtagt ccaactggga tattagccac ctgagagtc
 1140

aaatccatgc cagtgttggg ttctgtatcc agtgaacaa aaacagcctt gaacaagaaa
 1200
 actctggagg cagaattcaa cagcccgctc cccccaacac ctgagccagg tgaagggccc
 1260
 cgtaaattgg aaggatgcac aagttccaag gttacgtttc agtaagtaac gatgctcttt
 1320
 actaagtggg gtatagaaga atctgtaatg actaacttgt gtgtttcttt gatttgtttc
 1380
 ctttagagag attttgattg gctcgccggt aaattctctt cttcttttca tttgatgggc
 1440
 cagctttttc attctaggct cctagataag agatctaatt aagatccaaa gcaagtacca
 1500
 tgtacaaaga gaattacttc ccctaaactg gtttggtaat caggttctta tacacaaata
 1560
 attgatctgg atgatacaga ctctgcag
 1588

<210> 4232

<211> 434

<212> PRT

<213> Homo-sapiens

<400> 4232

Xaa Thr Thr Asp Thr Asp Gly Ala Ala Glu Thr Cys Val Ser Val Gln
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 20 25 30
 Glu Glu Lys Lys Ile Leu Ala Ile Glu Leu Glu Asn Leu Lys Ser Lys
 35 40 45
 Leu Val Glu Val Ile Glu Glu Val Asn Lys Val Lys Gln Glu Lys Thr
 50 55 60
 Val Leu Asn Ser Glu Val Leu Glu Gln Arg Lys Val Leu Glu Lys Cys
 65 70 75 80
 Asn Arg Val Ser Met Leu Ala Val Glu Glu Tyr Glu Glu Met Gln Val
 85 90 95
 Asn Leu Glu Leu Glu Lys Asp Leu Arg Lys Lys Ala Glu Ser Phe Ala
 100 105 110
 Gln Glu Met Phe Leu Glu Pro Asn Gln Gly Lys Lys Thr Lys Pro Pro
 115 120 125
 Phe Gly Arg Gln Ser Ser Ile Leu Asp Gln Gln Leu Ala Leu Asp Glu
 130 135 140
 Asn Ala Lys Leu Thr Gln Gln Leu Glu Glu Arg Ile Gln His Gln
 145 150 155 160
 Gln Lys Val Lys Glu Leu Glu Glu Gln Leu Glu Asn Glu Thr Leu His
 165 170 175
 Lys Glu Ile His Asn Leu Lys Gln Gln Leu Glu Leu Leu Glu Glu Asp
 180 185 190
 Lys Lys Glu Leu Glu Leu Lys Tyr Gln Asn Ser Glu Glu Lys Ala Arg
 195 200 205
 Asn Leu Lys His Ser Val Asp Glu Leu Gln Lys Arg Val Asn Gln Ser
 210 215 220
 Glu Asn Ser Val Pro Pro Pro Pro Pro Pro Pro Pro Pro Leu Pro Pro
 225 230 235 240
 Pro Pro Pro Asn Pro Ile Arg Ser Leu Met Ser Met Ile Arg Lys Arg


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                275                280                285
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Thr Ala Arg Pro Lys Thr Lys Pro Glu Ser Ser Lys Gly Cys Glu Ser
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Ala Val Asp Glu Leu Lys Gly Ile Leu Gly Thr Leu Asn Lys Ser Thr
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Ser Ser Arg Ser Leu Lys Ser Leu Asp Pro Glu Asn Ser Glu Thr Glu
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Leu Glu Arg Ile Leu Arg Arg Arg Lys Val Thr Ala Glu Ala Asp Ser
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Ser Ser Pro Thr Gly Ile Leu Ala Thr Ser Glu Ser Lys Ser Met Pro
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Val Leu Gly Ser Val Ser Ser Val Thr Lys Thr Ala Leu Asn Lys Lys
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<210> 4233

<211> 2827

<212> DNA

<213> Homo sapiens

<400> 4233

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<210> 4234

<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

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Glu	Gln	Asp	Lys	Val	Leu	His	Cys	Gln	Phe	Ser	Asp	Asn	Ser	Asp	Asp
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Ser	Trp	Ile	Gln	Lys	Pro	Asp	Ser	Val	Cys	Ser	Leu	Val	Glu	Leu	Ser
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Asp	Thr	Gln	Asp	Glu	Thr	Gln	Lys	Ser	Asp	Leu	Glu	Asn	Glu	Asp	Leu
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Lys	Ile	Asp	Cys	Leu	Gln	Glu	Ser	Gln	Glu	Leu	Asn	Leu	Gln	Lys	Leu
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Lys	Asn	Ser	Glu	Arg	Ile	Leu	Thr	Glu	Ala	Lys	Gln	Lys	Met	Arg	Glu
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Lys	Thr	Gly	Asn	Asp	Ala	Lys	Ser	Val	Ser	Lys	Gln	Tyr	Thr	Leu	Lys
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Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn		320
	325	330
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	340	345
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	370	375
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385	390	395
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	405	410
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	420	425
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	450	455
Arg Arg His Asp Val Asp Glu Lys Leu Lys Asn Gly Arg Val Leu Ser		460
465	470	475
Pro Glu Glu Glu His Val Leu Phe Gln Leu Glu Glu Gly Ile Glu Ala		480
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	500	505
Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn		510
	515	520
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile		525
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Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg		560
	565	570
Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu		575
	580	585
Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys		590
	595	600
Met Gln Leu Leu Leu His His Phe Lys Glu Gln Asp Gly Glu Gly Ile		605
	610	615
Met Glu Thr Phe Lys Thr Tyr Glu Asp Lys Ile Gln Gln Leu Glu Lys		620
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 Tyr Gln Glu Ala Gly Asp Gly Val Leu Lys Pro Glu Gly Gly Gly Met
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 690 695 700
 Ser Gly Arg Glu Arg Glu Met Asp Ser Ser Ala Ser Ser Leu Arg Thr
 705 710 715 720
 Gln Pro Asn Pro Gln Lys Leu Trp Glu Asp Ile Pro Glu Leu Pro Pro
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 Ile His Ser Ser Leu Ala Pro Pro Ser Gly His Met Leu Gly Asn Glu
 740 745 750
 Asn Lys Thr Glu Thr Asp Asp Asn Gln Phe Thr Lys Ser His Ser Arg
 755 760 765
 Leu Ser Ser Gln Ile Gln Val Val Gly Asn Val Gly Arg Leu His Gly
 770 775 780
 Val Thr Pro Val Lys Leu Cys Arg Lys Glu Leu Arg Gln Ile Ser Ala
 785 790 795 800
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<210> 4235

<211> 971

<212> DNA

<213> Homo sapiens

<400> 4235

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<210> 4236
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 Ser Arg Gly Phe Glu Asn Leu Val Pro Tyr Thr Ser Thr Val Ser Val
 65 70 75 80
 Val Ala Thr Pro Val Met Thr Tyr Gly His Leu Glu Gly Leu Ile Asn
 85 90 95
 Glu Trp Asn Leu Glu Leu Glu Asp Gln Glu Lys Tyr Phe Leu Leu Gln
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 Ala Thr Gln Val Asn Ala Trp Asp His Thr Leu Ile Glu Asn Gly Glu
 115 120 125
 Met Ile Arg Ile Leu His Gly Glu Val Asn Lys Val Lys Leu Asp Gln
 130 135 140
 Lys Arg Leu Glu Gln Glu Leu Asp Phe Ile Leu Ser Gln Gln Gln Glu
 145 150 155 160
 Leu Glu Phe Leu Leu Thr Tyr Leu Glu Glu Ser Thr Arg Asp Gln Ser
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 Thr Arg Ser Ala Glu Phe
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<210> 4237
 <211> 560
 <212> DNA
 <213> Homo sapiens

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<210> 4238

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4238

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His	Ser	Pro	Glu	Leu	Leu	Pro	Val	Pro	Ile	Leu	Asp	Ser	Leu	Ser	Cys
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Phe	Leu	Asp	Ser	Leu	Ser	Cys	Phe	Leu	Asp	Ser	Leu	Gln	Ile	Ala	Arg
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Glu	Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
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<212> DNA

<213> Homo sapiens

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<210> 4240

<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

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Pro Ala Tyr Ala Arg Ser Ser Asp Met Tyr Ser His Met Gly Thr Met			
65	70	75	80
Pro Arg Pro Ser Ile Lys Lys Ala Gln Asn Ser Gln Ala Ala Arg Gln			
85	90	95	
Ala Gln Glu Ala Gly Pro Lys Pro Asn Leu Val Pro Gly Gly Val Pro			
100	105	110	
Asp Pro Pro Gly Leu Glu Ala Ala Lys Glu Val Met Val Lys Ala Thr			
115	120	125	
Gly Pro Leu Glu Asp Thr Pro Ala Met Glu Pro Asn Pro Ser Ala Val			
130	135	140	
Glu Val Asp Pro Ile Arg Lys Pro Glu Val Pro Thr Gly Asp Val Glu			
145	150	155	160
Glu Glu Arg Pro Pro Arg Asp Val His Ser Glu Arg Ala Ala Gly Glu			
165	170	175	
Pro Glu Ala Gly Ser Asp Tyr Val Lys Phe Ser Lys Glu Lys Tyr Ile			
180	185	190	
Leu Asp Ser Ser Pro Glu Lys Leu His Lys Glu Leu Glu Glu Leu			
195	200	205	
Lys Leu Ser Ser Thr Asp Leu Arg Ser His Ala Trp Tyr His Gly Arg			
210	215	220	
Ile Pro Arg Glu Val Ser Glu Thr Leu Val Gln Arg Asn Gly Asp Phe			
225	230	235	240
Leu Ile Arg Asp Ser Leu Thr Ser Leu Gly Asp Tyr Val Leu Thr Cys			
245	250	255	
Arg Trp Arg Asn Gln Ala Leu His Phe Lys Ile Asn Lys Val Val Val			
260	265	270	
Lys Ala Gly Glu Ser Tyr Thr His Ile Gln Tyr Leu Phe Glu Gln Glu			
275	280	285	
Ser Phe Asp His Val Pro Ala Leu Val Arg Tyr His Val Gly Ser Arg			
290	295	300	
Lys Ala Val Ser Glu Gln Ser Gly Ala Ile Ile Tyr Cys Pro Val Asn			
305	310	315	320
Arg Thr Phe Pro Leu Arg Tyr Leu Glu Ala Ser Tyr Gly Leu Gly Gln			
325	330	335	
Gly Ser Ser Lys Pro Ala Ser Pro Val Ser Pro Ser Gly Pro Lys Gly			
340	345	350	
Ser His Met Lys Arg Arg Ser Val Thr Met Thr Asp Gly Leu Thr Ala			
355	360	365	
Asp Lys Val Thr Arg Ser Asp Gly Cys Pro Thr Ser Thr Ser Leu Pro			
370	375	380	
Arg Pro Arg Asp Ser Ile Arg Ser Cys Ala Leu Ser Met Asp Gln Ile			
385	390	395	400
Pro Asp Leu His Ser Pro Met Ser Pro Ile Ser Glu Ser Pro Ser Ser			
405	410	415	
Pro Ala Tyr Ser Thr Val Thr Arg Val His Ala Ala Pro Ala Ala Pro			
420	425	430	
Ser Ala Thr Ala Leu Pro Ala Ser Pro Val Ala Arg Cys Ser Ser Glu			

435	440	445
Pro Gln Leu Cys	Pro Gly Ser Ala	Pro Lys Thr His Gly Glu Ser Asp
450	455	460
Lys Gly Pro His Thr	Ser Pro Ser His Thr	Leu Gly Lys Ala Ser Pro
465	470	475
Ser Pro Ser Leu Ser	Ser Tyr Ser Asp	Pro Asp Ser Gly His Tyr Cys
485	490	495
Gln Leu Gln Pro	Pro Val Arg Gly	Ser Arg Glu Trp Ala Ala Thr Glu
500	505	510
Thr Ser Ser Gln Gln	Ala Arg Ser Tyr Gly	Glu Arg Leu Lys Glu Leu
515	520	525
Ser Glu Asn Gly Ala	Pro Glu Gly Asp Trp	Gly Lys Thr Phe Thr Val
530	535	540
Pro Ile Val Glu Val	Thr Ser Ser Phe Asn	Pro Ala Thr Phe Gln Ser
545	550	555
Leu Leu Ile Pro	Arg Asp Asn Arg	Pro Leu Glu Val Gly Leu Leu Arg
565	570	575
Lys Val Lys Glu Leu	Leu Ala Glu Val	Asp Ala Arg Thr Leu Ala Arg
580	585	590
His Val Thr Lys Val	Asp Cys Leu Val	Ala Arg Ile Leu Gly Val Thr
595	600	605
Lys Glu Met Gln Thr	Leu Met Gly Val	Arg Trp Gly Met Glu Leu Leu
610	615	620
Thr Leu Pro His Gly	Arg Gln Leu Arg	Leu Asp Leu Leu Glu Arg Phe
625	630	635
His Thr Met Ser Ile	Met Leu Ala Val	Asp Ile Leu Gly Cys Thr Gly
645	650	655
Ser Ala Glu Glu Arg	Ala Ala Leu Leu	His Lys Thr Ile Gln Leu Ala
660	665	670
Ala Glu Leu Arg Gly	Thr Met Gly Asn	Met Phe Ser Phe Ala Ala Val
675	680	685
Met Gly Ala Leu Asp	Met Ala Gln Ile	Ser Arg Leu Glu Gln Thr Trp
690	695	700
Val Thr Leu Arg Gln	Arg His Thr Glu	Gly Ala Ile Leu Tyr Glu Lys
705	710	715
Lys Leu Lys Pro Phe	Leu Lys Ser Leu	Asn Glu Gly Lys Glu Gly Pro
725	730	735
Pro Leu Ser Asn Thr	Thr Phe Pro His	Val Leu Pro Leu Ile Thr Leu
740	745	750
Leu Glu Cys Asp Ser	Ala Pro Pro Glu	Gly Pro Glu Pro Trp Gly Ser
755	760	765
Thr Glu His Gly Val	Glu Val Val Leu	Ala His Leu Glu Ala Ala Arg
770	775	780
Thr Val Ala His His	Gly Gly Leu Tyr	His Thr Asn Ala Glu Val Lys
785	790	795
Leu Gln Gly Phe Gln	Ala Arg Pro Glu	Leu Leu Glu Val Phe Ser Thr
805	810	815
Glu Phe Gln Met Arg	Leu Leu Trp Gly	Ser Gln Gly Ala Ser Ser Ser
820	825	830
Gln Ala Arg Arg Tyr	Glu Lys Phe Asp	Lys Val Leu Thr Ala Leu Ser
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His Lys Leu Glu Pro	Ala Val Arg Ser	Ser Ser Glu Leu
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<210> 4241
 <211> 479
 <212> DNA
 <213> Homo sapiens

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 180
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 300
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<210> 4242
 <211> 159
 <212> PRT
 <213> Homo sapiens

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 Cys Trp Lys Val Ser Pro His Ile Lys Met Asp Leu Leu Gln Trp Ile
 35 40 45
 Gln Ser Lys Thr Gln Ser Asp Gly Ser Thr Leu Gln Gln Gly Ser Leu
 50 55 60
 Glu Phe Phe Ser Cys Leu Tyr Glu Ile Gln Glu Glu Glu Phe Ile Gln
 65 70 75 80
 Gln Ala Leu Ser His Phe Gln Val Ile Val Val Ser Asn Ile Ala Ser
 85 90 95
 Lys Met Glu His Met Val Ser Ser Phe Cys Leu Lys Arg Cys Arg Ser
 100 105 110
 Ala Gln Val Leu His Leu Tyr Gly Ala Thr Tyr Ser Ala Asp Gly Glu
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 Asp Arg Ala Arg Cys Pro Gln Glu Arg Thr Arg Cys Trp Cys Ser Tyr
 130 135 140
 Gln Arg Gly Pro Phe Cys Trp Thr Pro Thr Val Asn Ile Trp Gln
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<210> 4243
 <211> 3159
 <212> DNA
 <213> Homo sapiens

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420
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480
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3060
gtgggtctgg atcttttctc agagcgtctc catgctatgg ttgcatttcc gttttctatg
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3159

<210> 4244
 <211> 849
 <212> PRT
 <213> Homo sapiens

<400> 4244
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 35 40 45
 Asn Ile Tyr Thr Phe Asn His Thr Val Thr Arg Asn Arg Thr Glu Gly
 50 55 60
 Val Arg Val Ser Val Asn Val Leu Asn Lys Gln Lys Gly Ala Pro Leu
 65 70 75 80
 Leu Phe Val Val Arg Gln Lys Glu Ala Val Val Ser Phe Gln Val Pro
 85 90 95
 Leu Ile Leu Arg Gly Met Phe Gln Arg Lys Tyr Leu Tyr Gln Lys Val
 100 105 110
 Glu Arg Thr Leu Cys Gln Pro Pro Thr Lys Asn Glu Ser Glu Ile Gln
 115 120 125
 Phe Phe Tyr Val Asp Val Ser Thr Leu Ser Pro Val Asn Thr Thr Tyr
 130 135 140
 Gln Leu Arg Val Ser Arg Met Asp Asp Phe Val Leu Arg Thr Gly Glu
 145 150 155 160
 Gln Phe Ser Phe Asn Thr Thr Ala Ala Gln Pro Gln Tyr Phe Lys Tyr
 165 170 175
 Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
 180 185 190
 Lys Ala Phe Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro
 195 200 205
 Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
 210 215 220
 Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
 225 230 235 240
 Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala Cys
 245 250 255
 Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
 260 265 270
 Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val Ser Gln Ala Val
 275 280 285
 Thr Ser Glu Ala Tyr Val Ser Gly Met Leu Phe Cys Leu Gly Ile Phe
 290 295 300
 Leu Ser Phe Tyr Leu Leu Thr Val Leu Leu Ala Cys Trp Glu Asn Trp
 305 310 315 320
 Arg Gln Lys Lys Lys Thr Leu Leu Val Ala Ile Asp Arg Ala Cys Pro
 325 330 335
 Glu Ser Ala Ser Leu Leu Gly His Pro Arg Val Leu Ala Asp Ser Phe
 340 345 350
 Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
 355 360 365
 Val Ser Gly Ser Thr Asp Gly Leu Val Asp Ser Ala Gly Thr Gly Asp

370	375	380
Leu Ser Tyr Gly Tyr	Gln Gly His Asp Gln Phe Lys Arg Arg Leu Pro	
385	390	395
Ser Gly Gln Met Arg	Gln Leu Cys Ile Ala Met Gly Arg Ser Phe Glu	400
	405	410
Pro Val Gly Thr Arg	Pro Arg Val Asp Ser Met Ser Ser Val Glu Glu	415
	420	425
Asp Asp Tyr Asp Thr	Leu Thr Asp Ile Asp Ser Asp Lys Asn Val Ile	430
	435	440
Arg Thr Lys Gln Tyr	Leu Tyr Val Ala Asp Leu Ala Arg Lys Asp Lys	445
	450	455
Arg Val Leu Arg Lys	Lys Tyr Gln Ile Tyr Phe Trp Asn Ile Ala Thr	460
	465	470
Ile Ala Val Phe Tyr	Ala Leu Pro Val Val Gln Leu Val Ile Thr Tyr	480
	485	490
Gln Thr Val Val Asn	Val Thr Gly Asn Gln Asp Ile Cys Tyr Tyr Asn	495
	500	505
Phe Leu Cys Ala His	Pro Leu Gly Asn Leu Ser Ala Phe Asn Asn Ile	510
	515	520
Leu Ser Asn Leu Gly	Tyr Ile Leu Leu Gly Leu Leu Phe Leu Leu Ile	525
	530	535
Ile Leu Gln Arg Glu	Ile Asn His Asn Arg Ala Leu Leu Arg Asn Asp	540
	545	550
Leu Cys Ala Leu Glu	Cys Gly Ile Pro Lys His Phe Gly Leu Phe Tyr	555
	565	570
Ala Met Gly Thr Ala	Leu Met Met Glu Gly Leu Leu Ser Ala Cys Tyr	575
	580	585
His Val Cys Pro Asn	Tyr Thr Asn Phe Gln Phe Asp Thr Ser Phe Met	590
	595	600
Tyr Met Ile Ala Gly	Leu Cys Met Leu Lys Leu Tyr Gln Lys Arg His	605
	610	615
Pro Asp Ile Asn Ala	Ser Ala Tyr Ser Ala Tyr Ala Cys Leu Ala Ile	620
	625	630
Val Ile Phe Phe Ser	Val Leu Gly Val Val Phe Gly Lys Gly Asn Thr	635
	645	650
Ala Phe Trp Ile Val	Phe Ser Ile Ile His Ile Ile Ala Thr Leu Leu	655
	660	665
Leu Ser Thr Gln Leu	Tyr Tyr Met Gly Arg Trp Lys Leu Asp Ser Gly	670
	675	680
Ile Phe Arg Arg Ile	Leu His Val Leu Tyr Thr Asp Cys Ile Arg Gln	685
	690	695
Cys Ser Gly Pro Leu	Tyr Val Asp Arg Met Val Leu Leu Val Met Gly	700
	705	710
Asn Val Ile Asn Trp	Ser Leu Ala Ala Tyr Gly Leu Ile Met Arg Pro	715
	725	730
Asn Asp Phe Ala Ser	Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu	735
	740	745
Leu Tyr Phe Ala Phe	Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg	750
	755	760
Ile Lys Leu Ile Pro	Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp	765
	770	775
Gly Phe Ala Leu Phe	Phe Phe Phe Gln Gly Leu Ser Thr Trp Gln Lys	780
	785	790
Thr Pro Ala Glu Ser	Arg Glu His Asn Arg Asp Cys Ile Leu Leu Asp	795
	800	

	805		810		815										
Phe	Phe	Asp	Asp	His	Asp	Ile	Trp	His	Phe	Leu	Ser	Ser	Ile	Ala	Met
	820				825				830						
Phe	Gly	Ser	Phe	Leu	Val	Ser	Gly	Pro	Pro	Gly	Ala	Ala	Leu	Arg	Ile
	835				840							845			
Thr															

<210> 4245
 <211> 909
 <212> DNA
 <213> Homo sapiens

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<210> 4246
 <211> 303
 <212> PRT
 <213> Homo sapiens

<400> 4246
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35           40           45
Gly Arg Gln Leu Gln Ala Ala Glu Glu Ala Val Glu Lys Leu Lys Ala
50           55           60
Thr Gln Ala Asp Met Gly Glu Lys Leu Ser Cys Thr Ser Asn His Leu
65           70           75           80
Ala Glu Cys Gln Ala Ala Met Leu Arg Lys Asp Lys Glu Gly Ala Ala
85           90           95
Leu Arg Glu Asp Leu Glu Arg Thr Gln Lys Glu Leu Glu Lys Ala Thr
100          105          110
Thr Lys Ile Gln Glu Tyr Tyr Asn Lys Leu Cys Gln Glu Val Thr Asn
115          120          125
Arg Glu Arg Asn Asp Gln Lys Met Leu Ala Asp Leu Asp Asp Leu Asn
130          135          140
Arg Thr Lys Lys Tyr Leu Glu Glu Arg Leu Ile Glu Leu Leu Arg Asp
145          150          155          160
Lys Asp Ala Leu Trp Gln Lys Ser Asp Ala Leu Glu Phe Gln Gln Lys
165          170          175
Leu Ser Ala Glu Glu Arg Trp Leu Gly Asp Thr Glu Ala Asn His Cys
180          185          190
Leu Asp Cys Lys Arg Glu Phe Ser Trp Met Val Arg Arg His His Cys
195          200          205
Arg Ile Cys Gly Arg Ile Phe Cys Tyr Tyr Cys Cys Asn Asn Tyr Val
210          215          220
Leu Ser Lys His Gly Gly Lys Lys Glu Arg Cys Cys Arg Ala Cys Phe
225          230          235          240
Gln Lys Leu Ser Glu Gly Pro Gly Ser Pro Asp Ser Ser Gly Ser Gly
245          250          255
Thr Ser Gln Gly Glu Leu Ser Pro Ala Leu Ser Pro Ala Ser Pro Gly
260          265          270
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Asp Asp Ala Val Phe Asp Ile Ile Thr Asp Glu Glu Leu Cys Gln
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<210> 4247

<211> 5755

<212> DNA

<213> Homo sapiens

<400> 4247

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 <211> 1297
 <212> PRT
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<400> 4248
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 35 40 45
 Ala Arg Thr Pro Pro Ala Pro Asp Pro His Leu Gly Gly Arg His Thr
 50 55 60
 Leu Gly Ser Pro Ser Arg Gly Ser Arg Ser Gly Met Glu Ala Ala Arg
 65 70 75 80
 Thr Glu Arg Pro Ala Gly Arg Pro Gly Ala Pro Leu Val Arg Thr Gly
 85 90 95
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 Asp Ala Thr Gly Gly Pro Gly Arg Pro Ala Ala Pro Ala Ser Arg Pro
 115 120 125
 Pro Ala Leu Ser Pro Leu Ser Pro Arg Ala Val Ala Ser Gln Trp Pro
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 Glu Glu Leu Ala Ser Ala Arg Arg Ala Ala Val Leu Gly Arg Arg Ala
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 Gly Pro Glu Leu Leu Pro Gln Gln Gly Gly Arg Gly Gly Glu Met
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 Gly Ile Pro Ala Pro Ala Lys Leu Gly Gly Ala Arg Arg Ser Arg Arg
 195 200 205
 Ala Gln Pro Pro Ile Thr Gln Glu Arg Gly Asp Ala Trp Ala Thr Ala

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Glu Glu Val Lys Ala Pro Arg Ala Gly Gly Ser Ala Ala Glu Asp Leu		240
	245	250
Arg Leu Pro Ser Thr Ser Phe Ala Leu Thr Gly Asp Ser Ala His Asn		255
	260	265
Gln Ala Met Val His Trp Ser Gly His Asn Ser Ser Val Ile Leu Ile		270
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Leu Thr Lys Leu Tyr Asp Phe Asn Leu Gly Ser Val Thr Glu Ser Ser		285
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Lys Val Gly Leu Lys Thr Val Leu Ser Tyr Leu Tyr Val Asn Pro Thr		320
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Asn Lys Arg Lys Ile Met Leu Leu Ser Asp Pro Glu Met Glu Ser Ser		335
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Ile Leu Ile Ser Ser Asp Glu Gly Ala Thr Tyr Gln Lys Tyr Arg Leu		350
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Thr Phe Tyr Ile Gln Ser Leu Leu Phe His Pro Lys Gln Glu Asp Trp		365
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Val Leu Ala Tyr Ser Leu Asp Gln Lys Leu Tyr Ser Ser Met Asp Phe		385
385	390	395
Gly Arg Arg Trp Gln Leu Met His Glu Arg Ile Thr Pro Asn Arg Phe		400
	405	410
Tyr Trp Ser Val Ala Gly Leu Asp Lys Glu Ala Asp Leu Val His Met		415
	420	425
Glu Val Arg Thr Thr Asp Gly Tyr Ala His Tyr Leu Thr Cys Arg Ile		430
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	450	455
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Thr Thr Ser Gly Arg Ala Ser Tyr Tyr Val Ser Tyr Arg Arg Glu Ala		480
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Ile Ile Ser Thr Asp Glu Asn Gln Val Phe Ala Ala Val Gln Glu Trp		510
	515	520
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Tyr Phe Thr Leu Ala Met Glu Asn Ile Lys Ser Ser Arg Gly Leu Met		540
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	565	570
Phe Leu Ala Asn Lys Lys Val Asp Asp Gln Val Lys Thr Tyr Ile Thr		575
	580	585
Tyr Asn Lys Gly Arg Asp Trp Arg Leu Leu Gln Ala Pro Asp Val Asp		590
	595	600
Leu Arg Gly Ser Pro Val His Cys Leu Leu Pro Phe Cys Ser Leu His		605
	610	615
Leu His Leu Gln Leu Ser Glu Asn Pro Tyr Ser Ser Gly Arg Ile Ser		620
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Ser Lys Glu Thr Ala Pro Gly Leu Val Val Ala Thr Gly Asn Ile Gly		640

3446

1075	1080	1085
His Asn Pro Asp Ile Pro Glu Trp Arg Lys Asp Ile Gly Asn Val Ile		
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Lys Arg Ala Leu Val Lys Val Thr Ser Val Pro Glu Asp Gln Ile Leu		
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Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu		
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Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu		
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Glu Gln Ile Val Glu Thr Leu Phe Asn Ala Leu Asn Gln Asn Leu Val		
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Gln Phe Glu Leu Lys Pro Gly Val Gln Val Ile Val Tyr Val Thr Gln		
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Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser		
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Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala		
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<210> 4249

<211> 553

<212> DNA

<213> Homo sapiens

<400> 4249

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<211> 164

<212> PRT

<213> Homo sapiens

<400> 4250

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<210> 4251

<211> 1574

<212> DNA

<213> Homo sapiens

<400> 4251

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<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

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 Lys Cys His Trp Lys Glu Lys Gln Asp Tyr Ala Phe Ala Cys Glu Gln

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<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

Met	Val	Ser	Leu	Trp	Val	Glu	Gly	Thr	Phe	Pro	Pro	Pro	Gly	Phe	Gly
1				5				10						15	
Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
			20					25					30		
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
			35					40					45		
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
			50					55					60		
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65					70					75				80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
				85					90					95	
Gln	Ala	Gln	Ala	Gln	Ala	Cys	Glu	Asn	Leu	Val	Pro	Ala	Thr	Val	Trp
			100					105						110	

Asp Gly

<210> 4255
<211> 2205
<212> DNA
<213> Homo sapiens

<400> 4255
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120
aacaccaat gggtcctca gaatttatcc tgggtccctc atgggacaag cattggatcc
180
cactaggaaa caatggatc tccatgcagt agctaacca gggttgattt ctttgactgg
240
tccttactta gatgttgag gagctggta tgttgagaca atcagtcaca caattcattc
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atccagtaca cagctgtctt ctgggcacac tgtggctgtg atgggcattg acttcacact
360
~~cagatacttc taaaaagttc tgatggacct attacctgtc tgtaaccaag atgggtggcaa~~
420
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480
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540
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660
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780
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840
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1200
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1260
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1320
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1380

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 2100
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 2160
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 2205

<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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Ser	Ser	Leu	Asn	Thr	Tyr	Ile	Val	Arg	Arg	Cys	Ile	Ala	Thr	Pro	Asn
			20					25				30			
Gly	Val	Leu	Arg	Ile	Tyr	Ser	Gly	Ser	Leu	Met	Gly	Gln	Ala	Leu	Asp
		35				40					45				
Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
	50				55				60						
Ile	Ser	Leu	Thr	Gly	Pro	Tyr	Leu	Asp	Val	Gly	Gly	Ala	Gly	Tyr	Val
65				70					75					80	
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
			85					90					95		
Gly	His	Thr	Val	Ala	Val	Met	Gly	Ile	Asp	Phe	Thr	Leu	Arg	Tyr	Phe
		100					105					110			
Tyr	Lys	Val	Leu	Met	Asp	Leu	Leu	Pro	Val	Cys	Asn	Gln	Asp	Gly	Gly
		115				120					125				
Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
	130				135						140				
His	Pro	Thr	Leu	Ile	Asp	Pro	Lys	Gly	His	Ala	Pro	Val	Glu	Gln	Gln

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145          150          155          160
His Ile Thr His Lys Glu Pro Leu Val Ala Asn Asp Ile Leu Asn His
          165          170          175
Pro Asn Phe Val Lys Lys Asn Leu Cys Asn Ser Phe Ser Asp Arg Thr
          180          185          190
Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr
          195          200          205
Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile
          210          215          220
Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser
225          230          235          240
Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys
          245          250          255
His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu
          260          265          270
Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn
          275          280          285
Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp
          290          295          300
Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser
305          310          315          320
Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp
          325          330          335
Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys
          340          345          350
Ala Pro Gln Lys Glu Cys Phe Gly Gly Ile Val Gly Ala Lys Ser Pro
          355          360          365
Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Lys
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<210> 4257

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 4257

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180
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240
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300
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360
aattatcagc tcagagattg tgaggcctct ctcttctgca atccgagttt tattggcgac
420
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480
gccacacat cactccacac ctctgaccaa agccccggga agcacatggt caccatggat
540

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ggggttaggg aagaagatct agcgcccttc tccctccgga agaggtggga gtcggagcct
 600
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 660
 cagcccaaca tcaacggcag tgtcgatgcc atcagtcact tgactgggaa ggtcatcaag
 720
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 780
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 960
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 1440
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<210> 4258

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4258

Met	Ile	Phe	Met	Ala	Arg	Asp	Phe	Ala	Thr	Pro	Ser	Leu	His	Thr	Ser
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Asp	Gln	Ser	Pro	Gly	Lys	His	Met	Val	Thr	Met	Asp	Gly	Val	Arg	Glu
			20					25					30		
Glu	Asp	Leu	Ala	Pro	Phe	Ser	Leu	Arg	Lys	Arg	Trp	Glu	Ser	Glu	Pro
		35					40					45			
His	Pro	Tyr	Val	Phe	Phe	Asn	Asp	Asp	His	Thr	Thr	Met	Thr	Phe	Ile
	50					55				60					
Gly	Phe	His	Leu	Gln	Pro	Asn	Ile	Asn	Gly	Ser	Val	Asp	Ala	Ile	Ser
65				70				75					80		
His	Leu	Thr	Gly	Lys	Val	Ile	Lys	Arg	Asp	Val	Met	Thr	Arg	Asp	Leu
			85					90					95		
Tyr	Gln	Gly	Leu	Leu	Leu	Gln	Arg	Val	Pro	Phe	Asn	Val	Asp	Phe	Asp

	100						105							110							
Lys	Leu	Pro	Arg	His	Lys	Lys	Leu	Glu	Arg	Leu	Cys	Leu	Thr	Leu	Gly						
	115						120							125							
Ile	Pro	Gln	Ala	Thr	Asp	Pro	Asp	Lys	Thr	Tyr	Glu	Leu	Thr	Thr	Asp						
	130						135							140							
Asn	Met	Leu	Lys	Ile	Leu	Ala	Ile	Glu	Met	Arg	Phe	Arg	Cys	Gly	Ile						
145							150							155							
Pro	Val	Ile	Ile	Met	Gly	Glu	Thr	Gly	Cys	Gly	Lys	Thr	Arg	Leu	Ile						
	165						170							175							
Lys	Phe	Leu	Ser	Asp	Leu	Arg	Arg	Gly	Gly	Thr	Asn	Ala	Asp	Thr	Ile						
	180						185							190							
Lys	Leu	Val	Lys	Val	His	Gly	Gly	Thr	Thr	Ala	Asp	Met	Ile	Tyr	Ser						
	195						200							205							
Arg	Val	Arg	Glu	Ala	Glu	Asn	Val	Ala	Phe	Ala	Asn	Lys	Asp	Gln	His						
	210						215							220							
Gln	Leu	Asp	Thr	Ile	Leu	Phe	Phe	Asp	Glu	Ala	Asn	Thr	Thr	Glu	Ala						
225							230							235							
Ile	Ser	Cys	Ile	Lys	Glu	Val	Leu	Cys	Asp	His	Met	Val	Asp	Gly	Gln						
	245						250							255							
Pro	Leu	Ala	Glu	Asp	Ser	Gly	Leu	His	Ile	Ile	Ala	Ala	Cys	Asn	Pro						
	260						265							270							
Tyr	Pro	Glu	Asn	Ser	Glu	Glu	Met	Ile	Cys	Arg	Leu	Glu	Ser	Ala	Gly						
	275						280							285							
Leu	Gly	Tyr	Arg	Val	Ser	Met	Glu	Glu	Thr	Ala	Asp	Arg	Leu	Gly	Ser						
	290						295							300							
Ile	Pro	Leu	Gly	Tyr	Thr	Cys	Thr	Gln	Arg												
305							310														

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<210> 4259
<211> 377
<212> DNA
<213> Homo sapiens
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<400> 4259
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120
gaagcgcagc ccgttgttgt gatacgagcc ggagatgcct tctgcaggga ctgtttcaag
180
gccttctacg tccacaagtt cagagccatg ctgggcaaga accggctcat ctttccaggc
240
gagaaggtgc tcttggcgtg gtctgggggg ccttcgtcca gctccatggt ctggcagggt
300
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377
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<210> 4260
<211> 125
<212> PRT
<213> Homo sapiens
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<400> 4260

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Gly Glu Pro Ala Pro Glu Glu Pro Pro Ala Pro Arg Pro Ser Arg
      20           25           30
Glu Gln Lys Cys Val Lys Cys Lys Glu Ala Gln Pro Val Val Val Ile
      35           40           45
Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val
      50           55           60
His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly
      65           70           75           80
Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met
      85           90           95
Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser Ala Lys Arg Leu
      100          105          110
Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly Ala
      115          120          125

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<210> 4261

<211> 592

<212> -DNA-

<213> Homo sapiens

<400> 4261

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120
tgaattctta ggagcacttt agtgaataaa gaacctgaca gtatgctggc ccacatgttt
180
aaggacaaag gtgtctgggg aaataagcaa gatcatagag gagctttctt aattgaccga
240
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300
gatggcatta atttattggg tgtgttagaa gaagcaagat tttttggtat tgactcattg
360
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420
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480
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592

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<210> 4262

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4262

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Ile Leu Arg Ser Thr Leu Val Asn Lys Glu Pro Asp Ser Met Leu Ala
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His Met Phe Lys Asp Lys Gly Val Trp Gly Asn Lys Gln Asp His Arg

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      20      25      30
Gly Ala Phe Leu Ile Asp Arg Ser Pro Glu Tyr Phe Glu Pro Ile Leu
      35      40      45
Asn Tyr Leu Arg His Gly Gln Leu Ile Val Asn Asp Gly Ile Asn Leu
      50      55      60
Leu Gly Val Leu Glu Glu Ala Arg Phe Phe Gly Ile Asp Ser Leu Ile
      65      70      75      80
Glu His Leu Glu Val Ala Ile Lys Asn Ser Gln Pro Pro Glu Asp His
      85      90      95
Ser Pro Ile Ser Arg Lys Glu Phe Val Arg Phe Leu Leu Ala Thr Pro
      100      105      110
Thr Lys Ser Glu Leu Arg Cys Gln Gly Leu Asn Phe Ser Gly Ala Asp
      115      120      125
Leu Ser Arg Leu Asp Leu Arg Tyr Ile Asn Phe Lys Met Ala Asn Leu
      130      135      140
Ser Arg Cys Asn Leu Ala His Ala Asn Leu Cys Cys
      145      150      155

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<210> 4263

<211> 7710

<212> DNA

<213> Homo sapiens

<400> 4263

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120
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180
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240
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780
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840
caagaagaat atgaaggcat ttgtaagctg ctgcaggctg ccaaagtggc ccttcaagat
900

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1020
aaggccggga tcaaagtctg ggttctcacg ggagacaaga tggagacggc cgcggccacg
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2160
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2280
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2340
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2400
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2460
caggtagcac tcgcggcctg gaaggagaag gtgtccacgg agccccacc catcctcggc
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2580
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2700
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2760
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<210> 4264

<211> 797

<212> PRT

<213> Homo sapiens

<400> 4264

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			20					25					30		
Met	Gln	Lys	Phe	Leu	Gly	Ser	Tyr	Phe	Ile	Thr	Trp	Asp	Glu	Asp	Met
		35					40					45			
Phe	Asp	Glu	Glu	Thr	Gly	Glu	Gly	Pro	Leu	Val	Asn	Thr	Ser	Asp	Leu
		50				55					60				
Asn	Glu	Glu	Leu	Gly	Gln	Val	Glu	Tyr	Ile	Phe	Thr	Asp	Lys	Thr	Gly
					70					75				80	
Thr	Leu	Thr	Glu	Asn	Asn	Met	Glu	Phe	Lys	Glu	Cys	Cys	Ile	Glu	Gly
				85					90					95	
His	Val	Tyr	Val	Pro	His	Val	Ile	Cys	Asn	Gly	Gln	Val	Leu	Pro	Glu
			100					105					110		
Ser	Ser	Gly	Ile	Asp	Met	Ile	Asp	Ser	Ser	Pro	Ser	Val	Asn	Gly	Arg
		115					120					125			
Glu	Arg	Glu	Glu	Leu	Phe	Phe	Arg	Ala	Leu	Cys	Leu	Cys	His	Thr	Val
		130				135					140				
Gln	Val	Lys	Asp	Asp	Asp	Ser	Val	Asp	Gly	Pro	Arg	Lys	Ser	Pro	Asp
				150						155					160
Gly	Gly	Lys	Ser	Cys	Val	Tyr	Ile	Ser	Ser	Ser	Pro	Asp	Glu	Val	Ala
				165					170					175	
Leu	Val	Glu	Gly	Val	Gln	Arg	Leu	Gly	Phe	Thr	Tyr	Leu	Arg	Leu	Lys
				180				185					190		
Asp	Asn	Tyr	Met	Glu	Ile	Leu	Asn	Arg	Glu	Asn	His	Ile	Glu	Arg	Phe
		195					200					205			
Glu	Leu	Leu	Glu	Ile	Leu	Ser	Phe	Asp	Ser	Val	Arg	Arg	Arg	Met	Ser
		210				215					220				
Val	Ile	Val	Lys	Ser	Ala	Thr	Gly	Glu	Ile	Tyr	Leu	Phe	Cys	Lys	Gly
				230					235					240	
Ala	Asp	Ser	Ser	Ile	Phe	Pro	Arg	Val	Ile	Glu	Gly	Lys	Val	Asp	Gln
				245					250					255	
Ile	Arg	Ala	Arg	Val	Glu	Arg	Asn	Ala	Val	Glu	Gly	Leu	Arg	Thr	Leu
				260				265					270		
Cys	Val	Ala	Tyr	Lys	Arg	Leu	Ile	Gln	Glu	Glu	Tyr	Glu	Gly	Ile	Cys

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Leu Ala Glu Ala Tyr Glu Gln Ile Glu Lys Asp Leu Thr Leu Leu Gly		
305	310	315
Ala Thr Ala Val Glu Asp Arg Leu Gln Glu Lys Ala Ala Asp Thr Ile		
	325	330
Glu Ala Leu Gln Lys Ala Gly Ile Lys Val Trp Val Leu Thr Gly Asp		
	340	345
Lys Met Glu Thr Ala Ala Ala Thr Cys Tyr Ala Cys Lys Leu Phe Arg		
	355	360
Arg Asn Thr Gln Leu Leu Glu Leu Thr Thr Lys Arg Ile Glu Glu Gln		
	370	375
Ser Leu His Asp Val Leu Phe Glu Leu Ser Lys Thr Val Leu Arg His		
385	390	395
Ser Gly Ser Leu Thr Arg Asp Asn Leu Ser Gly Leu Ser Ala Asp Met		
	405	410
Gln Asp Tyr Gly Leu Ile Ile Asp Gly Ala Ala Leu Ser Leu Ile Met		
	420	425
Lys Pro Arg Glu Asp Gly Ser Ser Gly Asn Tyr Arg Glu Leu Phe Leu		
	435	440
Glu Ile Cys Arg Ser Cys Ser Ala Val Leu Cys Cys Arg Met Ala Pro		
	450	455
Leu Gln Lys Ala Gln Ile Val Lys Leu Ile Lys Phe Ser Lys Glu His		
465	470	475
Pro Ile Thr Leu Ala Ile Gly Asp Gly Ala Asn Asp Val Ser Met Ile		
	485	490
Leu Glu Ala His Val Gly Ile Gly Val Ile Gly Lys Glu Gly Arg Gln		
	500	505
Ala Ala Arg Asn Ser Asp Tyr Ala Ile Pro Lys Phe Lys His Leu Lys		
	515	520
Lys Met Leu Leu Val His Gly His Phe Tyr Tyr Ile Arg Ile Ser Glu		
	530	535
Leu Val Gln Tyr Phe Phe Tyr Lys Asn Val Cys Phe Ile Phe Pro Gln		
545	550	555
Phe Leu Tyr Gln Phe Phe Cys Gly Phe Ser Gln Gln Thr Val His Asp		
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Thr Ala Tyr Leu Thr Leu Tyr Asn Ile Ser Phe Thr Ser Leu Pro Ile		
	580	585
Leu Leu Tyr Ser Leu Met Glu Gln His Val Gly Ile Asp Val Leu Lys		
	595	600
Arg Asp Pro Thr Leu Tyr Arg Asp Val Ala Lys Asn Ala Leu Leu Arg		
	610	615
Trp Arg Val Phe Ile Tyr Trp Thr Leu Leu Gly Leu Phe Asp Ala Leu		
625	630	635
Val Phe Phe Phe Gly Ala Tyr Phe Val Phe Glu Asn Thr Thr Val Thr		
	645	650
Ser Asn Gly Gln Ile Phe Gly Asn Trp Thr Phe Gly Thr Leu Val Phe		
	660	665
Thr Val Met Val Phe Thr Val Thr Leu Lys Leu Ala Leu Asp Thr His		
	675	680
Tyr Trp Thr Trp Ile Asn His Phe Val Ile Trp Gly Ser Leu Leu Phe		
	690	695
Tyr Val Val Phe Ser Leu Leu Trp Gly Gly Val Ile Trp Pro Phe Leu		
		700

705		710		715		720									
Asn	Tyr	Gln	Arg	Met	Tyr	Tyr	Val	Phe	Ile	Gln	Met	Leu	Ser	Ser	Gly
		725						730						735	
Pro	Ala	Trp	Leu	Ala	Ile	Val	Leu	Leu	Val	Thr	Ile	Ser	Leu	Leu	Pro
		740						745					750		
Asp	Val	Leu	Lys	Lys	Val	Leu	Cys	Arg	Gln	Leu	Trp	Pro	Thr	Ala	Thr
		755					760					765			
Glu	Arg	Val	Gln	Thr	Lys	Ser	Gln	Cys	Leu	Ser	Val	Glu	Gln	Ser	Thr
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<210> 4265

<211> 2422

<212> DNA

<213> Homo sapiens

<400> 4265

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180

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720

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<210> 4266

<211> 613

<212> PRT

<213> Homo sapiens

<400> 4266

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His Met Gly Phe Asn Asp Asp Arg Arg Phe Pro Asp Phe Ser Tyr Ile			
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Thr Gln Asn Gly Arg Leu Thr Asp Phe Leu Asp Cys Val Ile Ile Ser			
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His Phe His Leu Asp His Cys Gly Ala Leu Pro Tyr Phe Ser Glu Met			
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Val Gly Tyr Asp Gly Pro Ile Tyr Met Thr His Pro Thr Gln Ala Ile			
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Cys Pro Ile Leu Leu Glu Asp Tyr Arg Lys Ile Ala Val Asp Lys Lys			
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Gly Glu Ala Asn Phe Phe Thr Ser Gln Met Ile Lys Asp Cys Met Lys			
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Lys Val Val Ala Val His Leu His Gln Thr Val Gln Val Asp Asp Glu			
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Leu Glu Ile Lys Ala Tyr Tyr Ala Gly His Val Leu Gly Ala Ala Met			
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Phe Gln Ile Lys Val Gly Ser Glu Ser Val Val Tyr Thr Gly Asp Tyr			
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Asn Met Thr Pro Asp Arg His Leu Gly Ala Ala Trp Ile Asp Lys Cys			
195	200	205	
Arg Pro Asn Leu Leu Ile Thr Glu Ser Thr Tyr Ala Thr Thr Ile Arg			
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Asp Ser Lys Arg Cys Arg Glu Arg Asp Phe Leu Lys Lys Val His Glu			
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Thr Val Glu Arg Gly Gly Lys Val Leu Ile Pro Val Phe Ala Leu Gly			
245	250	255	
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Lys Thr Phe Val Gln Arg Asn Met Phe Glu Phe Lys His Ile Lys Ala			
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Gln Gly Thr Val Gly His Lys Ile Leu Ser Gly Gln Arg Lys Leu Glu			
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Met Glu Gly Arg Gln Val Leu Glu Val Lys Met Gln Val Glu Tyr Met			
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Gln Ala Glu Pro Glu Ser Val Leu Leu Val His Gly Glu Ala Lys Lys			
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Met Glu Phe Leu Lys Gln Lys Ile Glu Gln Glu Leu Arg Val Asn Cys			

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 450 455 460
 Ile Pro Val Gly Ile Ser Leu Gly Leu Leu Lys Arg Glu Met Ala Gln
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 Gly Leu Leu Pro Glu Ala Lys Lys Pro Arg Leu Leu His Gly Thr Leu
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 Lys Glu Leu Gly Leu Ala Glu His Gln Leu Arg Phe Thr Cys Arg Val
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 His Leu His Asp Thr Arg Lys Glu Gln Glu Thr Ala Leu Arg Val Tyr
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 Ser Glu Asp Pro Gly Thr Lys Val Leu Leu Val Ser Trp Thr Tyr Gln
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<210> 4267
 <211> 2230
 <212> DNA
 <213> Homo sapiens

<400> 4267
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Thr Arg Asn Leu Val Met Lys Leu Leu Leu Asn Met Ser Glu Asn Pro
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Thr Ala Ala Arg Asp Met Ile Asn Met Lys Ala Leu Ala Ala Leu Lys
65 70 75 80

Leu Ile Phe Asn His Lys Glu Ala Lys Ala Asn Leu Val Ser Gly Val
85 90 95

Ala Ile Phe Ile Asn Ile Lys Glu His Ile Arg Lys Gly Ser Ile Val
100 105 110

Val Asn Lys Tyr Gly His Thr Thr Asn Lys Ile Gly Phe Cys Leu Phe
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Leu Val Lys Asp Glu Phe
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<210> 4273

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 4273
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240
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1560

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 1980
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 2040
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 2081

<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

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			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
			35				40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
			50			55				60					
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu
65					70				75				80		
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90					95		
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100				105						110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
			115				120					125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
			130			135					140				
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
145				150				155					160		
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165				170						175		
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
			180				185						190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
			195			200						205			
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
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Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

<210> 4275

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4275

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120

ctcagtcgga agcctgtgtc catcgtgtcc ccggagccag ggaccaccg tgacgtgctg
180

gagaccccag tcgacctggc cggatttcct gtgctgctga gcgacacggc tgggttgctg
240

gaggcgctgg ggcccgtgga gcaggagggc gtgcggcgcg cccgggagag gctagagcag
300

gctgacctca ttctggccat gctggatgct tctgacctgg cctctccctc cagttgcaac
360

ttcctggcca ccgtcgtagc ctctgtggga gccagagcc ccagtgcag cagccagcgc
420

ctcctcctgg tgctgaacaa gtcggacctg ctgtccccgg agggcccagg tcccggtcct
480

gacctgcccc cgcacctgct gctgtcctgt ctgacgggag aggggctgga cggcctcctg
540

gaggcgctga ggaaggagct agctgcagtg tgtggggacc cgtccacaga tccccgctg
600

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660

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720

acccggctca cagggtggagg gggtagcgag gagatcctgg acatcatctt ccaggacttc
780

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<210> 4276

<211> 264

<212> PRT

<213> Homo sapiens

<400> 4276

Met Gln Val Ala Leu Gly Ala His Leu Arg Asp Ala Arg Arg Gly Gln
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Arg Leu Arg Ser Gly Ala His Val Val Val Thr Gly Pro Pro Asn Ala
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Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile
35 40 45

Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val
50 55 60

Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

65		70		75		80
Glu Gly Val Gly Pro Val Glu Gln Glu Gly Val Arg Arg Ala Arg Glu						
	85		90		95	
Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp						
	100		105		110	
Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser						
	115		120		125	
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Leu Val						
	130		135		140	
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro						
	145		150		155	
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu						
	165		170		175	
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Ala Val Cys Gly						
	180		185		190	
Asp Pro Ser Thr Asp Pro Pro Leu Leu Thr Arg Ala Arg His Gln His						
	195		200		205	
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys						
	210		215		220	
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu						
	225		230		235	
Thr Arg Leu Thr Gly Gly Gly Gly Thr Glu Glu Ile Leu Asp Ile Ile						
	245		250		255	
Phe Gln Asp Phe Cys Val Gly Lys						
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<210> 4277
 <211> 1070
 <212> DNA
 <213> Homo sapiens

<400> 4277
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 300
 tggcgaatca tgacagcgga caaagacaaa gacaaagaca aagagaagga ccgggaccga
 360
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 420
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 480
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 540
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 600
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 660

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 780
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 1070

<210> 4278

<211> 253

<212> PRT

<213> Homo sapiens

<400> 4278

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			20					25						30	
Glu	Asn	Ser	Arg	Pro	Arg	Arg	Ser	Cys	Thr	Leu	Glu	Gly	Gly	Ala	Lys
			35					40						45	
Asn	Tyr	Ala	Glu	Ser	Asp	His	Ser	Glu	Asp	Glu	Asp	Asn	Asp	Asn	Asn
			50					55				60			
Ser	Ala	Thr	Ala	Glu	Glu	Ser	Thr	Lys	Lys	Asn	Lys	Lys	Lys	Pro	Pro
65						70				75					80
Lys	Lys	Lys	Ser	Arg	Tyr	Glu	Arg	Thr	Asp	Thr	Gly	Glu	Ile	Thr	Ser
				85					90					95	
Tyr	Ile	Thr	Glu	Asp	Asp	Val	Val	Tyr	Arg	Pro	Gly	Asp	Cys	Val	Tyr
			100					105						110	
Ile	Glu	Ser	Arg	Arg	Pro	Asn	Thr	Pro	Tyr	Phe	Ile	Cys	Ser	Ile	Gln
			115					120					125		
Asp	Phe	Lys	Leu	Val	His	Asn	Ser	Gln	Ala	Cys	Cys	Arg	Ser	Pro	Thr
			130					135				140			
Pro	Ala	Leu	Cys	Asp	Pro	Pro	Ala	Cys	Ser	Leu	Pro	Val	Ala	Ser	Gln
145						150				155				160	
Pro	Pro	Gln	His	Leu	Ser	Glu	Ala	Gly	Arg	Gly	Pro	Val	Gly	Ser	Lys
				165					170					175	
Arg	Asp	His	Leu	Leu	Met	Asn	Val	Lys	Trp	Tyr	Tyr	Arg	Gln	Ser	Glu
			180					185					190		
Val	Pro	Asp	Ser	Val	Tyr	Gln	His	Leu	Val	Gln	Asp	Arg	His	Asn	Glu
			195					200				205			
Asn	Asp	Ser	Gly	Arg	Glu	Leu	Val	Ile	Thr	Asp	Pro	Val	Ile	Lys	Asn
			210					215				220			
Arg	Glu	Leu	Phe	Ile	Ser	Asp	Tyr	Val	Asp	Thr	Tyr	His	Ala	Ala	Ala
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<210> 4279
<211> 1963
<212> DNA
<213> Homo sapiens

<400> 4279
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 1920
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 1963

<210> 4280

<211> 575

<212> PRT

<213> Homo sapiens

<400> 4280

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			20					25					30		
Val	Ser	Asp	Asp	Val	Asn	Glu	Tyr	Ala	Met	Ala	Leu	Arg	Asp	Thr	Glu
		35					40					45			
Asp	Lys	Leu	Arg	Arg	Cys	Pro	Lys	Arg	Arg	Lys	Asp	Ile	Leu	Ala	Glu
	50					55					60				
Leu	Thr	Lys	Ser	Gln	Lys	Val	Phe	Ser	Glu	Lys	Leu	Asp	His	Leu	Ser
65					70					75				80	
Arg	Arg	Leu	Ala	Trp	Val	His	Ala	Thr	Val	Tyr	Ser	Gln	Glu	Lys	Met
			85					90					95		
Leu	Asp	Ile	Tyr	Trp	Leu	Leu	Arg	Val	Cys	Leu	Arg	Thr	Ile	Glu	His
		100						105					110		
Gly	Asp	Arg	Thr	Gly	Ser	Leu	Phe	Ala	Phe	Met	Pro	Glu	Phe	Tyr	Leu
		115					120					125			
Ser	Val	Ala	Ile	Asn	Ser	Tyr	Ser	Ala	Leu	Lys	Asn	Tyr	Phe	Gly	Pro
		130				135					140				
Val	His	Ser	Met	Glu	Glu	Leu	Pro	Gly	Tyr	Glu	Glu	Thr	Leu	Thr	Arg
145					150					155					160
Leu	Ala	Ala	Ile	Leu	Ala	Lys	His	Phe	Ala	Asp	Ala	Arg	Ile	Val	Gly
			165						170					175	
Thr	Asp	Ile	Arg	Asp	Ser	Leu	Met	Gln	Ala	Leu	Ala	Ser	Tyr	Val	Cys
			180					185					190		
Tyr	Pro	His	Ser	Leu	Arg	Ala	Val	Glu	Arg	Ile	Pro	Glu	Glu	Gln	Arg
		195				200						205			
Ile	Ala	Met	Val	Arg	Asn	Leu	Leu	Ala	Pro	Tyr	Glu	Gln	Arg	Pro	Trp
		210				215					220				
Ala	Gln	Thr	Asn	Trp	Ile	Leu	Val	Arg	Leu	Trp	Arg	Gly	Cys	Gly	Phe
225					230					235					240
Gly	Tyr	Arg	Tyr	Thr	Arg	Leu	Pro	His	Leu	Leu	Lys	Thr	Lys	Leu	Glu

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                275                280                285
Ser Phe Leu Asn Ser Val Leu Asn Gln Leu Asn Trp Ala Phe Ser Glu
                290                295                300
Phe Ile Gly Met Ile Gln Glu Ile Gln Gln Ala Ala Glu Arg Leu Glu
305                310                315                320
Arg Asn Phe Val Asp Ser Arg Gln Leu Lys Val Cys Ala Thr Cys Phe
                325                330                335
Asp Leu Ser Val Ser Leu Leu Arg Val Leu Glu Met Thr Ile Thr Leu
                340                345                350
Val Pro Glu Ile Phe Leu Asp Trp Thr Arg Pro Thr Ser Glu Met Leu
                355                360                365
Leu Arg Arg Leu Ala Gln Leu Leu Asn Gln Val Leu Asn Arg Val Thr
370                375                380
Ala Glu Arg Asn Leu Phe Asp Arg Val Val Thr Leu Arg Leu Pro Gly
385                390                395                400
Leu Glu Ser Val Asp His Tyr Pro Ile Leu Val Ala Val Thr Gly Ile
                405                410                415
Leu Val Gln Leu Leu Val Arg Gly Pro Ala Ser Glu Arg Glu Gln Ala
                420                425                430
Thr Ser Val Leu Leu Ala Asp Pro Cys Phe Gln Leu Arg Ser Ile Cys
                435                440                445
Tyr Leu Leu Gly Gln Pro Glu Pro Pro Ala Pro Gly Thr Ala Leu Pro
450                455                460
Ala Pro Asp Arg Lys Arg Phe Ser Leu Gln Ser Tyr Ala Asp Tyr Ile
465                470                475                480
Ser Ala Asp Glu Leu Ala Gln Val Glu Gln Met Leu Ala His Leu Thr
                485                490                495
Ser Ala Ser Ala Gln Ala Ala Ala Ala Ser Leu Pro Thr Ser Glu Glu
500                505                510
Asp Leu Cys Pro Ile Cys Tyr Ala His Pro Ile Ser Ala Val Phe Gln
515                520                525
Pro Cys Gly His Lys Ser Cys Lys Ala Cys Ile Asn Gln His Leu Met
530                535                540
Asn Asn Lys Asp Cys Phe Phe Cys Lys Thr Thr Ile Val Ser Val Glu
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Asp Trp Glu Lys Gly Ala Asn Thr Ser Thr Thr Ser Ser Ala Ala
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<210> 4281

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4281

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120

gctgactctg agaggcagtg ggcttccgcg cagcacctcc cctatcaca ttgtagggc
180

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 360
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 507

<210> 4282
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4282
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 20 25 30
 Leu Ile Thr Met Gly Gly Val Lys Cys Gln Val Asp Met Arg Gly Cys
 35 40 45
 Leu Leu Thr Ser Gly Leu Ile Asn Gln Pro Tyr Lys Cys Asp Arg Gly
 50 55 60
 Arg Cys Trp Arg Glu Ala His Cys Leu Ser Glu Ser Ala Gln Arg Thr
 65 70 75 80
 Glu Ser Gly Asp Ser Trp Gln Lys Arg Gly Gly Leu Arg Leu Trp Gly
 85 90 95
 Ile Trp Pro Ile Gly Gln Leu Trp Gly Ser
 100 105

<210> 4283
 <211> 315
 <212> DNA
 <213> Homo sapiens

<400> 4283
 gaattctcaa ccagaacagc ccagcaggaa aggagccggc atgggggtgcc cctctgcagc
 60
 cgaccgtttt cctagaaggc ctaaccgctc aaacgggcag gggagggggg cgggcggccc
 120
 gggagaaacc gattccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaacctccc gaaaacccaa gcttgtccgg cacaacttcg gtctctccag
 240
 cctcattcct gcccgcactc cgccaaactg ctgcacctgc ccagcgagc ggatgcagcg
 300
 ctcccgcccc nacgg
 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284
 Met Gly Cys Pro Ser Ala Ala Asp Arg Phe Pro Arg Arg Pro Asn Arg
 1 5 10 15
 Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser
 20 25 30
 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln
 35 40 45
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
 50 55 60
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys
 65 70 75 80
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
 85 90

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285
 nagatctcag agaacttggg gaacattcag aaaatgcaga aaacgcagggt gaaatgccgc
 60
 aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa
 120
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat
 180
 atatggtgat gcccagctg cagtctgacc cctgaccctc ctctgaacct gttcccccaa
 240
 cgggatctgg cagtgaccac cagaacctgg ageccacctg agtccagact tccctcacc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgtgtgcta caccctgagc
 360
 agtgtggagt ctcccagcgc cccagctcc ttgtcttctt gcaggtctgc tgtgcacgtg
 420
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggctctgagc
 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
 540
 ccgactgtga ccaggacctc tccagccac ctttcagcaa gagcggccgc a
 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro
 1 5 10 15
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

	<div>20</div>						<div>25</div>						<div>30</div>			
Arg	Leu	Pro	Ser	Pro	Pro	Arg	Thr	His	Pro	Thr	Thr	Ala	Pro	Asn	Leu	
	<div>35</div>						<div>40</div>					<div>45</div>				
Ser	Cys	Thr	Ala	Val	Tyr	Thr	Leu	Ser	Ser	Val	Glu	Ser	Pro	Ser	Ala	
	<div>50</div>					<div>55</div>					<div>60</div>					
Pro	Ser	Ser	Leu	Ser	Ser	Cys	Arg	Ser	Ala	Val	His	Val	Leu	Gln	Asp	
<div>65</div>					<div>70</div>				<div>75</div>						<div>80</div>	
Ser	Ile	Asp	Ser	Leu	Thr	Leu	Cys	Ser	Gly	Ala	Cys	Pro	Lys	Ala	Ser	
			<div>85</div>						<div>90</div>					<div>95</div>		
Ser	Leu	Arg	Gly	His	Lys	Gly	Thr	Ser	Ala							
	<div>100</div>						<div>105</div>									

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<210> 4287
<211> 868
<212> DNA
<213> Homo sapiens
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<400> 4287
cgagggcgcg actgcggggt tcctgggtgct gaggacggac gccattggag ttcccgagaa
60
ggctgagctc tcatctccct gggacccgca gcatggctga gggaaacttc agcgtgcaat
120
cggaagacta cagtgttgaa gacatggatg agggtagcga cgaagtcggg gaggaagaga
180
tggttgaagg caacgactat gaagaattcg gtgcgtttgg tggctatggc accctacca
240
gctttgacat ccatatectc agagccttcg gaagcttggg tccaggcctt cgcattctat
300
cgaatgagcc ctgggaactg gaaaaccnct gtgctggccc agaccctggt ggaggcattg
360
cagctggatc cggaaacact tgccaatgag acggccgccc gtgctgccaa cgtagcccg
420
gcgcgcgctt ccaaccgtgc ggctcggggc gctgccgccc ctgcccgta cgccttcagt
480
cagggtggctg ctagccaccg ggtggccacg ccgcaggtct caggagagga taccagccc
540
acgacctacg ccgcgagggc tcagggggcc acccctgagc cacccttg cttctccgag
600
acctcccaga tgttagtcac cagtaagatg gctgcccccg aggtccggc aacctccga
660
cagtcccaga caggctcccc ggcccaggag gctgctactg agggccctag tagcgctgt
720
gcattctctc aggtccgtg tgccaggag gtggacgcc accggcccag cacagcctt
780
ctggggcaga atgatgtctt cgatttcaact cagccggcag tgtcagtggc atggcttccc
840
gcgcccaga gacctgccca gccaaag
868

```

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<210> 4288
<211> 240
<212> PRT
<213> Homo sapiens
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<400> 4288

```

Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1           5           10           15
Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
      20           25           30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
      35           40           45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
      50           55           60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
      65           70           75           80
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ala Ser Asn
      85           90           95
Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
      100          105          110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
      115          120          125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
      130          135          140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
      145          150          155          160
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
      165          170          175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
      180          185          190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
      195          200          205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
      210          215          220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
      225          230          235          240

```

<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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ggatccctgg gaagatgact accctgcctg tgcgggatat gagggagaaa tatgggagcc
60
tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg
120
caaagagcct tttgggaaca gttttcttat tgaacatac tcagtgttta aacctgcagg
180
tgtgggttgg tggcagcca catggcatcc ttgtctctgt ccctgttctc ctgtctctgg
240
ctattcaggt tcccgtaggg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
300
gccctgttt ttggagtcct tgtgctgagg ccgctgtaac ttgcggagag ttg
353

```

<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

```

Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
 100          105          110
Leu

```

<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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nnaaatttgc caagccaaga gttaccccag gaagattctc tcttacatgg ccaattttca
60
caagcagtca ctcccctagc ccattcatcac acagattatt caaagcccac cgatatctca
120
tggagagaca cactttctca gaagtttgga tcttcagatc acttggagaa actatttaag
180
atggatgaag caagtgccca gctccttgct tataaggaaa aaggccattc tcagagttca
240
caattttcct ctgatcaaga aatagctcat ctgctgcctg aaaatgtgag tgcgctccca
300
gctacgggtg cagttgcttc tccacatacc acctcggcta ctccaaagcc cgccaccctt
360
ctaccaccca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
420
gtccacctg taaccactgt cactttctcag cctcccacga cctcatttc tacagttttt
480
acacgggctg tggctacact ccaagcaatg gctacaa
517

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<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

```

Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```

```

      20      25      30
Tyr Ser Lys Pro Thr Asp Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys
      35      40      45
Phe Gly Ser Ser Asp His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala
      50      55      60
Ser Ala Gln Leu Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser
      65      70      75      80
Gln Phe Ser Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val
      85      90      95
Ser Ala Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser
      100      105      110
Ala Thr Pro Lys Pro Ala Thr Leu Leu Pro Thr Asn Ala Ser Val Thr
      115      120      125
Pro Ser Gly Thr Ser Gln Pro Gln Leu Ala Thr Thr Ala Pro Pro Val
      130      135      140
Thr Thr Val Thr Ser Gln Pro Pro Thr Thr Leu Ile Ser Thr Val Phe
      145      150      155      160
Thr Arg Ala Val Ala Thr Leu Gln Ala Met Ala Thr
      165      170

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<210> 4293

<211> 547

<212> DNA

<213> Homo sapiens

<400> 4293

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gccggcgccc ccggcgcgga tgccctgctct gtgcctgtat ctgagatcat cgccgttgag
60
gaaacagacg ttcacgggaa acatcaaggc agtggaaaat ggcagaaaat ggaaaagcct
120
tacgctttta cagttcactg tgtaaagaga gcacgacggc accgctggaa gtgggcgcag
180
gtgactttct ggtgtccaga ggagcagctg tgtcacttgt ggctgcagac cctgcgggag
240
atgctggaga agctgacgtc cagaccaaag catttactgg tatttatcaa cccgtttgga
300
ggaaaaggac aaggcaagcg gatatatgaa agaaaagtgg caccactgtt caccttagcc
360
tccatcacca ctgacatcat cgttactgaa catgctaata aggccaagga gactctgtat
420
gagattaaca tagacaaata cgacggcatc gtctgtgtcg gcggagatgg tatgttcagc
480
gagggtgctgc acggtctgat tgggaggacg cagaggagcg ccgggggtcga ccagaaccac
540
ccccggg
547

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<210> 4294

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4294

```

Ala Gly Ala Pro Gly Ala Asp Ala Cys Ser Val Pro Val Ser Glu Ile

```

```

1           5           10           15
Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
20           25           30
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
35           40           45
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
50           55           60
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
65           70           75           80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
85           90           95
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
100          105          110
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
115          120          125
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile
130          135          140
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
145          150          155          160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
165          170          175
Asp Gln Asn His Pro Arg
180

```

<210> 4295
 <211> 431
 <212> DNA
 <213> Homo sapiens

<400> 4295
 nntctagaaa atcactgtct ccttctaccc tgccatctct acaccagggt taaaaacaag
 60
 agcccaactgc tggctccttg ttttgtaaata aagatttgtt ggactacagc tatgcccgta
 120
 catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
 180
 gagaccccca ttgccacaa gcctaaaaca tttgccatcg agccctttaa gaaagagttt
 240
 gctggccgtg cgcgggtggc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
 300
 gcaggcgggtg aggtctggag ttcgaaacca gcctggccag cgtggcgaaa cctgtctcc
 360
 cctcccaga ttcacgtgat tatccacct cagcctcctg agtacctggg actataggcg
 420
 cgtgccaacc a
 431

<210> 4296
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 4296
 Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

1	5	10	15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile			
	20	25	30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys			
	35	40	45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile			
	50	55	60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe			
65	70	75	80
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu			
	85	90	95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp			
	100	105	110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile			
	115	120	125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu			
130	135		

<210> 4297

<211> 1668

<212> -DNA-

<213> Homo sapiens

<400> 4297

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nccatggact cggcctttgt gggatataaag gtcaaccaag tgtcagctgc agttggaaaa
60
gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaaag gaggacaatg ccatccttca tattcctcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttggca tctgtgccc ccagggtctt cctcatccac cacttctggt
360
tcctttcatc tggaaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacaccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctggg
480
aatggcaaaa cagttcgtcc atcctctgtt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttcctt gaaactggag gatgacagtt tcccaactca caaaaggaag
600
gccaaagtat ccatcattag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaatccac aactgactca cacttcccca gacaggacca gttgcctca
720
tttccaaaga actgcactct ggaattaaag ggactcttcc attttgaaga aggcattccag
780
aagctgtatc agtgcaatgg gatgcctgg aaagcctgga gtccccaac caaggatgtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

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acagagcaga aaggcacctg gaatgcggct gcccaagctt gcagggaaca atacctgggc
 960
 aaccttgtaa ctgtattctc caggcagcac atgcgggtggc tctgggacat tgggtgggaga
 1020
 aagtcctttt ggataggttt gaacgaccaa gtgcatgctg gccactggga gtggatcggc
 1080
 ggtgaacctg ttgccttcac caatgggaga agagggccct ctccacgctc caagcttgga
 1140
 aagagctgtg ttttggttca aagacaaggg aaatggcaaa caaaagactg taggagagcc
 1200
 aaacctcata attatgtgtg ttccagaaaa ctctaaatat aacagaccct acagggggcc
 1260
 acctggagtt tgtcacctat ttattcacag gatctgtgaa tattgtcca tagaaaaaa
 1320
 attgttatga ttgagtgggt atacctttgt gattctgtct agtgaaaatg ggacattttt
 1380
 aatagtcca gaaagattga taaataaata ttttttacia gataagatac aatttttgta
 1440
 tctcaatacc ttttaaaata aatgccagca gtattaaaaa gtgtaagggt tgtttattcc
 1500
 agaagaacct-caccttacc ccattccaaa tctcaggag caccagtctc atagtccttg
 1560
 gatttttttt aaaaaaatt tttgggtccg ttacctctaa tgaatttatt ctgaaatatg
 1620
 tatcgtaggt gctcctacca ctttagtctg agtggaaagc caaaaaac
 1668

<210> 4298
 <211> 411
 <212> PRT
 <213> Homo sapiens

<400> 4298
 Xaa Met Asp Ser Ala Phe Val Gly Ile Lys Val Asn Gln Val Ser Ala
 1 5 10 15
 Ala Val Gly Lys Asp Phe Thr Val Ile Pro Ser Lys Leu Ile Gln Phe
 20 25 30
 Asp Pro Gly Met Ser Thr Lys Met Trp Asn Ile Ala Ile Thr Tyr Asp
 35 40 45
 Gly Leu Glu Glu Asp Asp Glu Val Phe Glu Val Ile Leu Asn Ser Pro
 50 55 60
 Val Asn Ala Val Leu Gly Thr Lys Thr Lys Ala Val Lys Ile Leu
 65 70 75 80
 Asp Ser Lys Gly Gly Gln Cys His Pro Ser Tyr Ser Ser Asn Gln Ser
 85 90 95
 Lys His Ser Thr Trp Glu Lys Gly Ile Trp His Leu Leu Pro Pro Gly
 100 105 110
 Ser Ser Ser Ser Thr Thr Ser Gly Ser Phe His Leu Glu Arg Arg Pro
 115 120 125
 Leu Pro Ser Ser Met Gln Leu Ala Val Ile Arg Gly Asp Thr Leu Arg
 130 135 140
 Gly Phe Asp Ser Thr Asp Leu Ser Gln Arg Lys Leu Arg Thr Arg Gly
 145 150 155 160
 Asn Gly Lys Thr Val Arg Pro Ser Ser Val Tyr Arg Asn Gly Thr Asp

165 170 175
 Ile Ile Tyr Asn Tyr His Gly Ile Val Ser Leu Lys Leu Glu Asp Asp
 180 185 190
 Ser Phe Pro Thr His Lys Arg Lys Ala Lys Val Ser Ile Ile Ser Gln
 195 200 205
 Pro Gln Lys Thr Ile Lys Val Ala Glu Leu Pro Gln Ala Asp Lys Val
 210 215 220
 Glu Ser Thr Thr Asp Ser His Phe Pro Arg Gln Asp Gln Leu Pro Ser
 225 230 235 240
 Phe Pro Lys Asn Cys Thr Leu Glu Leu Lys Gly Leu Phe His Phe Glu
 245 250 255
 Glu Gly Ile Gln Lys Leu Tyr Gln Cys Asn Gly Ile Ala Trp Lys Ala
 260 265 270
 Trp Ser Pro Gln Thr Lys Asp Val Glu Asp Lys Ser Cys Pro Ala Gly
 275 280 285
 Trp His Gln His Ser Gly Tyr Cys His Ile Leu Ile Thr Glu Gln Lys
 290 295 300
 Gly Thr Trp Asn Ala Ala Gln Ala Cys Arg Glu Gln Tyr Leu Gly
 305 310 315 320
 Asn Leu Val Thr Val Phe Ser Arg Gln His Met Arg Trp Leu Trp Asp
 325 330 335
 Ile Gly Gly Arg Lys Ser Phe Trp Ile Gly Leu Asn Asp Gln Val His
 340 345 350
 Ala Gly His Trp Glu Trp Ile Gly Gly Glu Pro Val Ala Phe Thr Asn
 355 360 365
 Gly Arg Arg Gly Pro Ser Pro Arg Ser Lys Leu Gly Lys Ser Cys Val
 370 375 380
 Leu Val Gln Arg Gln Gly Lys Trp Gln Thr Lys Asp Cys Arg Arg Ala
 385 390 395 400
 Lys Pro His Asn Tyr Val Cys Ser Arg Lys Leu
 405 410

<210> 4299

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4299

nngcgaccgc tcttgctgaa aggtggctgg gagaggtcct ggtcagagtc ggagtcagag
 60
 tcccaggagg ggagtgagg gctcaggcac tgggtgccctt gtggcctctt aggtctgagg
 120
 ccttgggaca ggcccccgag cacaaagtga ggctgtctat ggagttctgc agcacgtgca
 180
 cagcagacca tatatcactc agttccttct ggaggtcacc cttccagcag ccactggctc
 240
 cctgcggtat ctcttcagtc tccggacagg cggtgtgttc atgacctgc tgcttcatct
 300
 tggtcaggat tttgcggcat ttacactgcg tttctgcat tttctgaatg ttcaccaagt
 360
 tctctgagat ctcatcctcc tgcgcttgga gcttctgata gatgaaggtc acctcctccc
 420
 gcaccagttc cagctcctcc cacaggaact tcttgctgtc ccggtatctc tgggccagca
 480

gctgcaggca gcgagtgggtg cgggcccgt gcctctctc actgtcacgc agggctctct
 540
 ccagccctg aaggccttgg gtcagggccc catacagtc ctgccggccc tgetccatgc
 600
 cccacttggtg ctctctcttc tctccatggc ggctgtggg gctcagcacc tcttcaagct
 660
 gctgaatctt gatttgctgc aagcagctct ccttctccaa catggctact gagtgggtca
 720
 ggaactcgaa agccttgggtc tgggctgtg actggctctt gagtgactca agttcacatc
 780
 gcaggagctt ctgggagtcg ggaatcatca caatggctctt ggctttgact ttggaagagc
 840
 tggctctccaa gggcttcaca taccacctgt tcatgctctn cccatcaggg accacgaagc
 900
 cagtctcag ctgtgacgct gaagtttgat cccgcgggga caccatcgta ttaaacgct
 960
 cagagactga gtcacagaga ggggtgtc
 988

<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

Gly	Cys	Leu	Trp	Ser	Ser	Ala	Ala	Arg	Ala	Gln	Gln	Thr	Ile	Tyr	His
1				5				10						15	
Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
			20				25					30			
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35				40					45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
	50				55					60					
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
65				70				75						80	
Ala	Ser	Asp	Arg												

<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

nnaggcaccg cggcgctcgg gtgttttttg gggcccgggt ggagggcccg ggtgccgggg
 60
 cccaaggtgc ggcctcgcta gcgggagagg gagcgggatc accggcccgg agagagctct
 120
 caggggccaga gcggggcagg aggatgcttt cccagcccca ccatggagct gcgctgtggg
 180
 ggattgctgt tcagttctcg ctttgattca gggaaatctag cccacgtgga gaaggaggaa
 240
 tctttgtcca gtgatgggga aggggtagga ggtggggcgt cagccctgac cagtggcatt
 300

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<210> 4302

<211> 717

<212> PRT

<213> Homo sapiens

<400> 4302

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			20					25						30	
Glu	Gly	Val	Gly	Gly	Gly	Ala	Ser	Ala	Leu	Thr	Ser	Gly	Ile	Ala	Ser
		35					40					45			
Ser	Pro	Asp	Tyr	Glu	Phe	Asn	Val	Trp	Thr	Arg	Pro	Asp	Cys	Ala	Glu
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Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
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Gly	Gly	Met	Pro	Gly	Lys	Leu	Ile	Lys	Ile	Asn	Ile	Met	Asn	Met	Asn
				85					90					95	
Lys	Gln	Ser	Lys	Leu	Tyr	Ser	Gln	Gly	Met	Ala	Pro	Phe	Val	Arg	Thr
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Leu	Pro	Thr	Arg	Pro	Arg	Trp	Glu	Arg	Ile	Arg	Asp	Arg	Pro	Thr	Phe
		115					120				125				
Glu	Met	Thr	Glu	Thr	Gln	Phe	Val	Leu	Ser	Phe	Val	His	Arg	Phe	Val
	130					135					140				
Glu	Gly	Arg	Gly	Ala	Thr	Thr	Phe	Phe	Ala	Phe	Cys	Tyr	Pro	Phe	Ser
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Tyr	Ser	Asp	Cys	Gln	Glu	Leu	Leu	Asn	Gln	Leu	Asp	Gln	Arg	Phe	Pro
			165					170						175	
Glu	Asn	His	Pro	Thr	His	Ser	Ser	Pro	Leu	Asp	Thr	Ile	Tyr	Tyr	His
		180						185					190		
Arg	Glu	Leu	Leu	Cys	Tyr	Ser	Leu	Asp	Gly	Leu	Arg	Val	Asp	Leu	Leu
	195						200					205			
Thr	Ile	Thr	Ser	Cys	His	Gly	Leu	Arg	Glu	Asp	Arg	Glu	Pro	Arg	Leu
	210					215					220				
Glu	Gln	Leu	Phe	Pro	Asp	Thr	Ser	Thr	Pro	Arg	Pro	Phe	Arg	Phe	Ala

225 230 235 240
 Gly Lys Arg Ile Phe Phe Leu Ser Ser Arg Val His Pro Gly Glu Thr
 245 250 255
 Pro Ser Ser Phe Val Phe Asn Gly Phe Leu Asp Phe Ile Leu Arg Pro
 260 265 270
 Asp Asp Pro Arg Ala Gln Thr Leu Arg Arg Leu Phe Val Phe Lys Leu
 275 280 285
 Ile Pro Met Leu Asn Pro Asp Gly Val Val Arg Gly His Tyr Arg Thr
 290 295 300
 Asp Ser Arg Gly Val Asn Leu Asn Arg Gln Tyr Leu Lys Pro Asp Ala
 305 310 315 320
 Val Leu His Pro Ala Ile Tyr Gly Ala Lys Ala Val Leu Leu Tyr His
 325 330 335
 His Val His Ser Arg Leu Asn Ser Gln Ser Ser Ser Glu His Gln Pro
 340 345 350
 Ser Ser Cys Leu Pro Pro Asp Ala Pro Val Ser Asp Leu Glu Lys Ala
 355 360 365
 Asn Asn Leu Gln Asn Glu Ala Gln Cys Gly His Ser Ala Asp Arg His
 370 375 380
 Asn Ala Glu Ala Trp Lys Gln Thr Glu Pro Ala Glu Gln Lys Leu Asn
 385 390 395 400
 Ser Val Trp Ile Met Pro Gln Gln Ser Ala Gly Leu Glu Glu Ser Ala
 405 410 415
 Pro Asp Thr Ile Pro Pro Lys Glu Ser Gly Val Ala Tyr Tyr Val Asp
 420 425 430
 Leu His Gly His Ala Ser Lys Arg Gly Cys Phe Met Tyr Gly Asn Ser
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 Phe Ser Asp Glu Ser Thr Gln Val Glu Asn Met Leu Tyr Pro Lys Leu
 450 455 460
 Ile Ser Leu Asn Ser Ala His Phe Asp Phe Gln Gly Cys Asn Phe Ser
 465 470 475 480
 Glu Lys Asn Met Tyr Ala Arg Asp Arg Arg Asp Gly Gln Ser Lys Glu
 485 490 495
 Gly Ser Gly Arg Val Ala Ile Tyr Lys Ala Ser Gly Ile Ile His Ser
 500 505 510
 Tyr Thr Leu Glu Cys Asn Tyr Asn Thr Gly Arg Ser Val Asn Ser Ile
 515 520 525
 Pro Ala Ala Cys His Asp Asn Gly Arg Ala Ser Pro Pro Pro Pro Pro
 530 535 540
 Ala Phe Pro Ser Arg Tyr Thr Val Glu Leu Phe Glu Gln Val Gly Arg
 545 550 555 560
 Ala Met Ala Ile Ala Ala Leu Asp Met Ala Glu Cys Asn Pro Trp Pro
 565 570 575
 Arg Ile Val Leu Ser Glu His Ser Ser Leu Thr Asn Leu Arg Ala Trp
 580 585 590
 Met Leu Lys His Val Arg Asn Ser Arg Gly Leu Ser Ser Thr Leu Asn
 595 600 605
 Val Gly Val Asn Lys Lys Arg Gly Leu Arg Thr Pro Pro Lys Ser His
 610 615 620
 Asn Gly Leu Pro Val Ser Cys Ser Glu Asn Thr Leu Ser Arg Ala Arg
 625 630 635 640
 Ser Phe Ser Thr Gly Thr Ser Ala Gly Gly Ser Ser Ser Ser Gln Gln
 645 650 655
 Asn Ser Pro Gln Met Lys Asn Ser Pro Ser Phe Pro Phe His Gly Ser

	660		665		670										
Arg	Pro	Ala	Gly	Leu	Pro	Gly	Leu	Gly	Ser	Ser	Thr	Gln	Lys	Val	Thr
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His	Arg	Val	Leu	Gly	Pro	Val	Arg	Gly	Lys	Pro	Val	Trp	Glu	Pro	Leu
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Gln	His	Val	Phe	Gly	Cys	Leu	Gly	His	Cys	Trp	Gly	Lys			
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<210> 4303
 <211> 768
 <212> DNA
 <213> Homo sapiens

<400> 4303
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 420
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 660
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<210> 4304
 <211> 256
 <212> PRT
 <213> Homo sapiens

<400> 4304
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 20 25 30
 Glu Glu Glu Glu Glu Gln Asp His Gly Val Gly Arg Thr Gly Thr Val
 35 40 45
 Asn Ser Val Gly Ser Asn Gln Ser Ile Pro Ser Met Ser Ile Ser Ala

50	55	60
Ser Ser Gln Ser Ser Ser Val Asn Ser Leu Pro Asp Val Ser Asp Asp		
65	70	75
Lys Ser Glu Leu Asp Met Met Glu Gly Asp His Thr Val Met Ser Asn		80
	85	90
Ser Ser Val Ile His Leu Lys Pro Glu Glu Asn Tyr Arg Glu Glu		95
	100	105
Gly Asp Pro Arg Thr Arg Ala Ser Asp Pro Gln Ser Pro Pro Gln Val		110
	115	120
Ser Arg His Lys Ser His Tyr Arg Asn Arg Glu His Phe Ala Thr Ile		125
	130	135
Arg Thr Ala Ser Leu Val Thr Arg Gln Met Gln Glu His Glu Gln Asp		140
	145	150
Ser Glu Leu Arg Glu Gln Met Ser Gly Tyr Lys Arg Met Arg Arg Gln		155
	160	165
His Gln Lys Gln Leu Met Thr Leu Glu Asn Lys Leu Lys Ala Glu Met		170
	175	180
Asp Glu His Arg Leu Arg Leu Asp Lys Asp Leu Glu Thr Gln Arg Asn		185
	190	195
Asn Phe Ala Ala Glu Met Glu Lys Leu Ile Lys Lys His Gln Ala Ala		200
	205	210
Met Glu Lys Glu Ala Lys Val Met Ser Asn Glu Glu Lys Lys Phe Gln		215
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Gln His Ile Gln Ala Gln Gln Lys Lys Glu Leu Asn Ser Phe Leu Glu		230
	235	240
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 <212> DNA
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<210> 4306

<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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			20					25				30			
Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
		35				40					45				
Glu	Ser	Pro	Ala	Ser	Pro	Gln	Leu	Val	Leu	Pro	Ala	Asn	Leu	Gly	Asp
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Ile	Glu	Ala	Leu	Asn	Leu	Gly	Asn	Asn	Gly	Leu	Glu	Glu	Val	Pro	Glu

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Gly Leu Gly Ser	Ala Leu Gly Ser	Leu Arg Val	Leu Val Leu Arg	Arg		
	85		90		95	
Asn Arg Phe Ala	Arg Leu Pro Pro	Ala Val Ala Glu	Leu Gly His His			
	100		105		110	
Leu Thr Glu Leu Asp	Val Ser His Asn	Arg Leu Thr Ala	Leu Gly Ala			
	115		120		125	
Glu Val Val Ser Ala	Leu Arg Glu Leu	Arg Lys Leu Asn	Leu Ser His			
	130		135		140	
Asn Gln Leu Pro Ala	Leu Pro Ala Gln	Leu Gly Ala Leu	Ala His Leu			
	145		150		155	
Glu Glu Leu Asp Val	Ser Phe Asn Arg	Leu Ala His Leu	Pro Asp Ser			
	165		170		175	
Leu Ser Cys Leu Ser	Arg Leu Arg Thr	Leu Asp Val Asp	His Asn Gln			
	180		185		190	
Leu Thr Ala Phe Pro	Arg Gln Leu Gln	Leu Val Ala Leu	Glu Glu			
	195		200		205	
Leu Asp Val Ser Ser	Asn Arg Leu Arg	Gly Leu Pro Glu	Asp Ile Ser			
	210		215		220	
Ala Leu Arg Ala Leu	Lys Ile Leu Trp	Leu Ser Gly Ala	Glu Leu Gly			
	225		230		235	
Thr Leu Pro Ala Gly	Phe Cys Glu Leu	Ala Ser Leu Glu	Ser Leu Met			
	245		250		255	
Leu Asp Asn Asn Gly	Leu Gln Ala Leu	Pro Ala Gln Phe	Ser Cys Leu			
	260		265		270	
Gln Arg Leu Lys Met	Leu Asn Leu Ser	Ser Asn Leu Phe	Glu Glu Phe			
	275		280		285	
Pro Ala Ala Leu Leu	Pro Leu Ala Gly	Leu Glu Leu Tyr	Leu Ser			
	290		295		300	
Arg Asn Gln Leu Thr	Ser Val Pro Ser	Leu Ile Ser Gly	Leu Gly Arg			
	305		310		315	
Leu Leu Thr Leu Trp	Leu Asp Asn Asn	Arg Ile Arg Tyr	Leu Pro Asp			
	325		330		335	
Ser Ile Val Glu Leu	Thr Gly Leu Glu	Leu Val Leu Gln	Gly Asn			
	340		345		350	
Gln Ile Ala Val Leu	Pro Asp His Phe	Gly Gln Leu Ser	Arg Val Gly			
	355		360		365	
Leu Trp Lys Ile Lys	Asp Asn Pro Leu	Ile Gln Pro Pro	Tyr Glu Val			
	370		375		380	
Cys Met Lys Gly Ile	Pro Tyr Ile Ala	Ala Tyr Gln Lys	Glu Leu Ala			
	385		390		395	
His Ser Gln Pro Ala	Val Gln Pro Arg	Leu Lys Leu Leu	Met Gly			
	405		410		415	
His Lys Ala Ala Gly	Lys Thr Leu Leu	Arg His Cys Leu	Thr Glu Glu			
	420		425		430	
Arg Val Glu Gly Cys	Pro Gly Gly Asp	Lys Glu Lys Cys	Tyr Pro			
	435		440		445	
Pro Ser Pro Pro Val	Ser Lys Gly Ile	Glu Val Thr Ser	Trp Thr			
	450		455		460	
Ala Asp Ala Ser Arg	Gly Leu Arg Phe	Ile Val Tyr Asp	Leu Ala Gly			
	465		470		475	
Asp Glu Ser Tyr Glu	Val Ile Gln Pro	Phe Phe Leu Ser	Pro Gly Ala			
	485		490		495	
Leu Tyr Val Leu Val	Val Asn Leu Ala	Thr Tyr Glu Pro	Arg His Phe			

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515	520	525
Asn Ala Val Val Cys Ile Val Gly Thr His Ala Asp Leu Cys Gly Glu		
530	535	540
Arg Glu Leu Glu Glu Lys Cys Leu Asp Ile His Arg Gln Ile Ala Leu		
545	550	555
Gln Glu Lys His Asp Ala Glu Gly Leu Ser Arg Leu Ala Lys Val Val		
565	570	575
Asp Glu Ala Leu Ala Arg Asp Phe Glu Leu Arg Ser Ala Ser Pro His		
580	585	590
Ala Ala Tyr Tyr Gly Val Ser Asp Lys Asn Leu Arg Arg Arg Lys Ala		
595	600	605
His Phe Gln Tyr Leu Leu Asn His Arg Leu Gln Ile Leu Ser Pro Val		
610	615	620
Leu Pro Val Ser Cys Arg Asp Pro Arg His Leu Arg Arg Leu Arg Asp		
625	630	635
Lys Leu Leu Ser Val Ala Glu His Arg Glu Ile Phe Pro Asn Leu His		
645	650	655
Arg Val Leu Pro Arg Ser Trp Gln Val Leu Glu Glu Leu His Phe Gln		
660	665	670
Pro Pro Gln Ala Gln Arg Leu Trp Leu Ser Trp Trp Asp Ser Ala Arg		
675	680	685
Leu Gly Leu Gln Ala Gly Leu Thr Glu Asp Arg Leu Gln Ser Ala Leu		
690	695	700
Ser Tyr Leu His Glu Ser Gly Lys Leu Leu Tyr Phe Glu Asp Ser Pro		
705	710	715
Ala Leu Lys Glu His Val Phe His Asn Leu Thr Arg Leu Ile Asp Ile		
725	730	735
Leu Asn Val Phe Phe Gln Arg Asp Pro Ser Leu Leu Leu His Lys Leu		
740	745	750
Leu Leu Gly Thr Ser Gly Glu Gly Lys Ala Glu Gly Glu Ser Ser Pro		
755	760	765
Pro Met Ala Arg Ser Thr Pro Ser Gln Glu Leu Leu Arg Ala Thr Gln		
770	775	780
Leu His Gln Tyr Val Glu Gly Phe Leu Leu His Gly Leu Leu Pro Ala		
785	790	795
His Val Ile Arg Leu Leu Leu Lys Pro His Val Gln Ala Gln Gln Asp		
805	810	815
Leu Gln Leu Leu Glu Leu Leu Glu Lys Met Gly Leu Cys Tyr Cys		
820	825	830
Leu Asn Lys Pro Lys Gly Lys Pro Leu Asn Gly Ser Thr Ala Trp Tyr		
835	840	845
Lys Phe Pro Cys Tyr Val Gln Asn Glu Val Pro His Ala Glu Ala Trp		
850	855	860
Ile Asn Gly Thr Asn Leu Ala Gly Gln Ser Phe Val Ala Glu Gln Leu		
865	870	875
Gln Ile Glu Tyr Ser Phe Pro Phe Thr Phe Pro Pro Gly Leu Phe Ala		
885	890	895
Arg Tyr Ser Val Gln Ile Asn Ser His Val Val His Arg Ser Asp Gly		
900	905	910
Lys Phe Gln Ile Phe Ala Tyr Arg Gly Lys Val Pro Val Val Val Ser		
915	920	925
Tyr Arg Pro Ala Arg Gly Val Leu Gln Pro Asp Thr Leu Ser Ile Ala		

930	935	940
Ser His Ala Ser Leu Pro Asn Ile Trp Thr Ala Trp Gln Ala Ile Thr		
945	950	955
Pro Leu Val Glu Glu Leu Asn Val Leu Leu Gln Glu Trp Pro Gly Leu		960
	965	970
His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser		975
	980	985
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro		990
	995	1000
Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val		1005
	1010	1015
Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys		1020
1025	1030	1035
Ser Lys Lys Asn Val Gly Glu Lys His Arg Asn Gln		1040
	1045	1050

<210> 4307

<211> 947

<212> DNA

<213> Homo sapiens

<400> 4307

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 120
 aggacagaac tgategatac gtccaggetc tgaggaccgt ctctctcctc ctgggagcgc
 180
 cgttcttcac taccagcctg ctgccgtggc acaacctcta cttctggtac gtgcggacgc
 240
 tgtggaccag cacctggggc caggtgccat ggtgatgcc caggcagcct cgctgcacgc
 300
 tgtggttgtg gagttcaggg tgtgcagga acagcaagat gtgcctcttg ttcttgctgc
 360
 cacgcttccc tgtgtcctgc gggcggtgt ggtggggct gctccttct cacaggancc
 420
 tgtggcggat cgggagcnc ctgtggtgac tgccaaggct tcgacgtgca catcatggat
 480
 gacatgatta aggtaggcag ggccacactc tgcatagtc ccccgacctg ctctgtatc
 540
 gcaggcctct cacagggtcc cagcttgggc agcacaggct cttctgttg gggcagtgag
 600
 gtcagggtgt gccattttgt gtggttcaac atgagcattg cttggtacca gccctgttct
 660
 tggtccgtg ctgtcacctc gtgtcagaat ctccactggg cctgcacgtc ctgtcattgc
 720
 aactgcccc gccagtgcc acagcttctt ttctagtggg gctgacttcc cagaggccat
 780
 ctgggaacct tcttaggcag ccatttccat ggtgggggct ccattcccgg gaggggtacc
 840
 tgaggagatt cccacaggtt atttacatgg taggggttag caactgggcc tacgttctcc
 900
 agaaccatgg gctgtcctga cagcgccagt ggtccttggg ttcatga
 947

<210> 4308
 <211> 200
 <212> PRT
 <213> Homo sapiens

<400> 4308
 Gly Pro Ser Leu Ser Ser Trp Ala Ser Arg Ser Ser Leu Pro Ala Cys
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 20 25 30
 Ala Pro Gly Ala Arg Cys His Gly Asp Ala Pro Gly Ser Leu Ala Ala
 35 40 45
 Arg Cys Gly Cys Gly Val Gln Gly Val Gln Gly Thr Ala Arg Cys Ala
 50 55 60
 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
 65 70 75 80
 Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa
 85 90 95
 Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile
 100 105 110
 Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys Ser Cys
 115 120 125
 Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser
 130 135 140
 Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met
 145 150 155 160
 Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu
 165 170 175
 Cys Gln Asn Leu His Trp Ala Cys Thr Ser Cys His Cys Asn Cys Pro
 180 185 190
 Cys Gln Cys Pro Gln Leu Leu Phe
 195 200

<210> 4309
 <211> 1928
 <212> DNA
 <213> Homo sapiens

<400> 4309
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 120
 gtcgcctttg acactggaga actgaacaga ttgggagggt gatgtgttaa gaccacataa
 180
 tccatttgaa atctcaacct tttcagggtc actatcacct tcaatgacat tcacagaagt
 240
 ttcccgatct gttaaactgt ctgaaatact tggatgattt tcatccaaag ttgaagtttc
 300
 aagatttggt tcatcattca cctgttgaat tataaccctt tctgaatgct ttgatttata
 360
 aataggcatg aaaaattcag ttggtgaagg gaatatctcg ttctcatcct ttggtgccga
 420

caataacata tccaaagcct tttgggtattg ttgaegttec tgctgaattg ttacttcact
480
ttcattttttt aattcatttg gttctgaatt ccagccttt tcaaaatcaa atacattcaa
540
catatcaaca tcattttgct ttaccgagtt ttccctccgat gtgcagccta agtctacttt
600
caggacatgc agcagggtggc gcatttttttc ctccctccaaa tgtttatttt gttttatatg
660
tcgctcgaac agtcgttcta aaaacctggt tgaaaataaa ccaagtttca aaatttcac
720
tgttacatct tcaatgaaac tcagatacaa cagttcttct tcatcagagt agattttacg
780
agttgaaggg ggcttcaggg aatactgaca cattgccctt ggtgaggaat gctgaagagc
840
atcatcetta atctcatccc atgttgagtc atgcccttct aaaggtaaag gagctatttt
900
ttctttggca tcatatgtca cacaattaga tgctgcttt atgttcattt ctgaatctgt
960
catgttttta gtctcagctg tccccaactc agatttaaag cttaattcag tctgggtttc
1020
agcttctatc cggtgatctg taaaatcctt ttttcttttg gcagggtgat aatagcgata
1080
ctgtgacagg aaagattttg cttctgtttt taaagtgcga ggagtgaatg gcaattgttt
1140
gtagaanaag agttcagaat gtttatccaa aagatcccca ctgggtgctt tcgaaatgac
1200
taactgaaac cgggtggaat ttgggaatgt gcttctgggc cttctgccat acagggtctc
1260
agagctcagt ttccggggcc cggaggctgc ataatccaca ctggacgggg aggaactgga
1320
gttcttctca ggaccatttg tgatgacttt actggattta ttagactta ggtgtagtct
1380
ctctgaagag ggtactagt accttgcaaa ggatgaaaat ccattcattt cttcttttaa
1440
catgtcatcc tcaatttgcg gtctgcctga gggcttttgt aaggatttaa aaagtgactt
1500
ggaattattt ttataattgg ctgcattgc agtttttagtt aatttgaact ctttttcaca
1560
ttgtgctaatt tcttttttga gtttctctct tcgttggttg tctgcatact ttatgctggt
1620
actcacgctt actggaaccg agcagtctac tgcagctttg gctgaaagga ttttattata
1680
gtgaacagcc atgtgattct tgaccagctg gagagtgtt agtctgagag aagaggagtc
1740
agtgcacaaa gcattacttt tgggtgtcaa gtgtccttta aataggcacg gtggaccata
1800
tctgggaagg acagaggttg ctctgactct ccggctgcca ttcattgctta gtcctcttgc
1860
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1920
tggaggac
1928

<210> 4310

<211> 599
 <212> PRT
 <213> Homo sapiens

<400> 4310

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Met Asn Gly Ser Arg Arg Val Arg Ala Thr Ser Val Leu Pro Arg Tyr
 1           5           10           15
Gly Pro Pro Cys Leu Phe Lys Gly His Leu Ser Thr Lys Ser Asn Ala
      20           25           30
Phe Cys Thr Asp Ser Ser Ser Leu Arg Leu Ser Thr Leu Gln Leu Val
      35           40           45
Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
      50           55           60
Ala Val Asp Cys Ser Val Pro Val Ser Val Ser Thr Ser Ile Lys Tyr
      65           70           75           80
Ala Asp Gln Gln Arg Arg Glu Lys Leu Lys Lys Glu Leu Ala Gln Cys
      85           90           95
Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
      100          105          110
Asn Asn Ser Lys Ser Leu Phe Asn Thr Leu Gln Lys Pro Ser Gly Glu
      115          120          125
Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
      130          135          140
Ser Phe Ala Arg Ser Leu Val Pro Ser Ser Glu Arg Leu His Leu Ser
      145          150          155          160
Leu His Lys Ser Ser Lys Val Ile Thr Asn Gly Pro Glu Lys Asn Ser
      165          170          175
Ser Ser Ser Pro Ser Ser Val Asp Tyr Ala Ala Ser Gly Pro Arg Lys
      180          185          190
Leu Ser Ser Gly Ala Leu Tyr Gly Arg Arg Pro Arg Ser Thr Phe Pro
      195          200          205
Asn Ser His Arg Phe Gln Leu Val Ile Ser Lys Ala Pro Ser Gly Asp
      210          215          220
Leu Leu Asp Lys His Ser Glu Leu Phe Ser Asn Lys Gln Leu Pro Phe
      225          230          235          240
Thr Pro Arg Thr Leu Lys Thr Glu Ala Lys Ser Phe Leu Ser Gln Tyr
      245          250          255
Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
      260          265          270
Ile Glu Ala Glu Thr Gln Thr Glu Leu Ser Phe Lys Ser Glu Leu Gly
      275          280          285
Thr Ala Glu Thr Lys Asn Met Thr Asp Ser Glu Met Asn Ile Lys Gln
      290          295          300
Ala Ser Asn Cys Val Thr Tyr Asp Ala Lys Glu Lys Ile Ala Pro Leu
      305          310          315          320
Pro Leu Glu Gly His Asp Ser Thr Trp Asp Glu Ile Lys Asp Asp Ala
      325          330          335
Leu Gln His Ser Ser Pro Arg Ala Met Cys Gln Tyr Ser Leu Lys Pro
      340          345          350
Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Leu Tyr Leu
      355          360          365
Ser Phe Ile Glu Asp Val Thr Asp Glu Ile Leu Lys Leu Gly Leu Phe
      370          375          380
Ser Asn Arg Phe Leu Glu Arg Leu Phe Glu Arg His Ile Lys Gln Asn

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385          390          395          400
Lys His Leu Glu Glu Glu Lys Met Arg His Leu Leu His Val Leu Lys
          405          410          415
Val Asp Leu Gly Cys Thr Ser Glu Glu Asn Ser Val Lys Gln Asn Asp
          420          425          430
Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
          435          440          445
Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
          450          455          460
Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
465          470          475          480
Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
          485          490          495
Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
          500          505          510
Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
          515          520          525
Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
          530          535          540
Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
545          550          555          560
Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
          565          570          575
Asn His Asp Met Glu Leu Ser Thr Leu Lys Ile Met Glu Met Ser Ile
          580          585          590
Glu Asp Cys Pro Leu Asp Val
          595

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<210> 4311
 <211> 432
 <212> DNA
 <213> Homo sapiens

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<400> 4311
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cagagcattt tgtttaatat caacgaagcc atggctacga gggctaattgt ggggaaaagg
120
aaaaacataa ccactggggc atctgcagca tcccagactc agatgcctac gggccagaca
180
ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
240
gccgatgagg gagatgggaa aagtaacgac ctcgctcctta gttgtcctta ctttagaaat
300
gagactggag gggaaggcga caggcggatt gcgctctctc gagccaactc atcctcttct
360
agttctgggg aaagctgctc ttctgaatcg tcaactcagct ctcaactgcac aaatgcaggt
420
gtctccgtct tg
432

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<210> 4312
 <211> 144
 <212> PRT

<213> Homo sapiens

<400> 4312

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Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
 1           5           10          15
His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
          20           25           30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
          35           40           45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
          50           55           60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
        65           70           75           80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
          85           90           95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
          100          105          110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
          115          120          125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
130          135          140

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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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ggatccctcc ttttctctcc cctgccctgc ccaggccag atggccttga ctgtaaagcc
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aggtgctgcc tgacagggtc ttctctccct gtctctgggc attgatccat ctctttgtcc
120
attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
gtcctggcag aatctacagt tcacccaac tctatgcctt accctccca acccaacagc
240
atttgagtt tgcaaatat acagacccaa gtcctgaggg gactgaggac atgatgctgg
300
gcccaagtct cctgtcagg gttctctcc aatgccagcc ctgccactcc ttctcacc
360
tccttgagc ctctctgct gttgtctat cccaacggcc ctgtccctt ccttctctgc
420
ccttcaccag cttctgga caccatgcc tgaggaagg acctttggtt ttctctaaac
480
atctttgaag ggtgagga gtcagggtg gctgcctgt cactctttat ttggaagcca
540
ctcaaacat tccaagaag agggacctca gctggcaatc tggaacctg gccaggtct
600
gggcagatgt cttcacttct cctaccttcc cagtcttggt atcctgtgat gagcaccagg
660
atggccctgt ggtccctaga gcaccttca tgctgtaggg tctgcagcc ccactcttct
720
tctactgggc cctggtatcc tggtcctct ctcagctctg ccactgatct ctgtgcctta
780

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gtttactttct ctgcacgggg gactcacccc aagaccattt ccagcagctt cccaggtgat
 840
 gtggtgcccc aaggetgggc ttgcagctg tggcccagct ccttagtgct gcccaggaga
 900
 caccagctg ctcagaatga ggtgactgcg ggcaac
 936

<210> 4314
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 4314
 Met Ser Ser Leu Leu Pro Ser Gln Ser Cys Asp Pro Val Met Ser
 1 5 10 15
 Thr Arg Met Ala Leu Trp Ser Leu Glu His Pro Ser Cys Cys Arg Val
 20 25 30
 Leu Gln Pro His Pro Phe Ser Thr Gly Pro Trp Tyr Pro Gly Ser Ser
 35 40 45
 Leu Ser Ser Ala Thr Asp Leu Cys Ala Leu Val Tyr Phe Ser Ala Arg
 50 55 60
 Gly Thr His Pro Lys Thr Ile Ser Ser Ser Phe Pro Gly Asp Val Val
 65 70 75 80
 Pro Gln Gly Trp Ala Leu Gln Leu Trp Pro Ser Ser Leu Val Leu Pro
 85 90 95
 Arg Arg His Gln Ala Ala Gln Asn Glu Val Thr Ala Gly Asn
 100 105 110

<210> 4315
 <211> 573
 <212> DNA
 <213> Homo sapiens

<400> 4315
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 cagagcgatg accatgtgaa gacacaggga agagatggcc acctaccacc acgccatggt
 120
 cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcactctacc atccaagcca
 180
 ccgtcaccta ccatccaagc catggccacc tacctgccaa gccatggcca cctaccggcc
 240
 aagccatggt cacctaccca ccaagtcatg gtcgcctacc atccaaggag caggcctgga
 300
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 420
 tctcttgtca cagttgcatt agccagtga cctaccggg cccttctgca gtcgcctggc
 480
 tcaggagtgg ttctggtcag gaagttctga ggccaggcag gatcgggaca ctccctggaa
 540
 agacccgagg gagatatttg ggaaacaaga tgg
 573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
 Xaa Leu Ile Gln Tyr Asp Trp Cys Pro Tyr Lys Lys Arg Lys Leu Gly
 1 5 10 15
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
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 tcccatgccg aaacataact ccagatattt aatgaatttc gtgatagccg cttattcaca
 120
 gatgttatca ttgggtgga aggaaaagaa ttctcttgcc atagagctgt gctctcagcc
 180
 tgtagcagct acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg
 240
 gttgagatca atggtatttt agctgaagct atggaatgtt ttttcagta tgtttatact
 300
 ggaaagggtga agatcactac agagaatgta cagtatctct ttgagacatc aagcctcttt
 360
 cagattagtg ttctccgtga tgcattgtgcc aagttcttgg aggagcaact tgatccttgt
 420
 aattgcttag gaatccagcg ctttctgat acccattcac tcaaaacact cttcacaaaa
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

cttgacaaaag atgaacttat tgattatatt tgtagtgatg aacttggttat tggtaaagag
 600
 gagatgggtt ttgaagccgt catgcgttgg gtctatcgtg ccgttgatct gagaagacca
 660
 ctgttacacg agctcctgac acatgtgaga ctccctctgt tgcaccccaa ctactttgtt
 720
 caaacagttg aagtggacca attg
 744

<210> 4318
 <211> 239
 <212> PRT
 <213> Homo sapiens

<400> 4318
 Pro Val Arg Asp Leu Gly Ser Ile Ser Gly Ser Ser His Ala Glu Asn
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 Ile Leu Gln Ile Phe Asn Glu Phe Arg Asp Ser Arg Leu Phe Thr Asp
 20 25 30
 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val
 35 40 45
 Leu Ser Ala Cys Ser Ser Tyr Phe Arg Ala Met Phe Cys Asn Asp His
 50 55 60
 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu
 65 70 75 80
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile
 85 90 95
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln
 100 105 110
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu
 115 120 125
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser
 130 135 140
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe
 145 150 155 160
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu
 165 170 175
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu
 180 185 190
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu
 195 200 205
 Arg Arg Pro Leu Leu His Glu Leu Leu Thr His Val Arg Leu Pro Leu
 210 215 220
 Leu His Pro Asn Tyr Phe Val Gln Thr Val Glu Val Asp Gln Leu
 225 230 235

<210> 4319
 <211> 388
 <212> DNA
 <213> Homo sapiens

<400> 4319
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ccaggccgta gccacagcaa ggaccgaacc ctgggaaaac cagacagcct tttagtcct
 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaagc
 180
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttg gcc acaaagaaaa acctagacca tgtcaataaa
 300
 atcttaaaag ccaaaaaact tcaaaggcag gccaggacag ggaataactt tgtgaaacgt
 360
 aggccaggtc gaccgcggtc ggagagag
 388

<210> 4320
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 4320
 Xaa Met Glu Lys Ser Ile Asp Ala Val Ile Ala Thr Ala Ser Ala Pro
 1 5 10 15
 Pro Ser Ser Ser Pro Gly Arg Ser His Ser Lys Asp Arg Thr Leu Gly
 20 25 30
 Lys Pro Asp Ser Leu Leu Val Pro Ala Val Ala Ser Asp Ser Cys Asn
 35 40 45
 Asn Ser Ile Ser Leu Leu Ser Glu Lys Leu Thr Ser Ser Cys Ser Pro
 50 55 60
 His His Ile Lys Arg Ser Val Val Glu Ala Met Gln Arg Gln Ala Arg
 65 70 75 80
 Lys Met Cys Asn Tyr Asp Lys Ile Leu Ala Thr Lys Lys Asn Leu Asp
 85 90 95
 His Val Asn Lys Ile Leu Lys Ala Lys Lys Leu Gln Arg Gln Ala Arg
 100 105 110
 Thr Gly Asn Asn Phe Val Lys Arg Arg Pro Gly Arg Pro Arg Ser Glu
 115 120 125
 Arg

<210> 4321
 <211> 278
 <212> DNA
 <213> Homo sapiens

<400> 4321
 ngcccagaac ctgccacagt cccctgagaa caccgacctg caggttattc caggcagcca
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 gaccaggctc cttggtgaga agaccaccac agcggcaggg tccagccaca gcaggcccgg
 120
 cgtcccgggtg gaaggcagcc ctgggcgga cccaggcggt taacgggtca ctaggcagcc
 180
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 240
 gcccgctgc ccccatcccc tccaggccac gttttaga
 278

<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
 Met Gly Ala Gly Gly His Lys Thr Ser Ala Gln Leu Thr Pro Ala Pro
 1 5 10 15
 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu
 20 25 30
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro
 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
 50 55 60
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
 65 70 75 80
 Trp Gln Val Leu Gly
 85

<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

<400> 4323
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 60
 ctgaaagact cgacattcag ccagtttagc ccgatctcca gtgctgaaga gtttgatgac
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<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

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			20					25					30		
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp
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Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
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Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
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Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
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Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
			100					105					110		
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
		115				120						125			
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
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Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
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Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
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<210> 4325
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<212> DNA
<213> Homo sapiens
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120
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<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

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15

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  35      40      45
Ala Ala Cys Gly Gln Ser Leu Glu Glu Arg Ser Lys Thr Leu Ala Glu
  50      55      60
Val Lys Pro Ile Leu Gln Ala Thr Gly Phe Pro Trp His Val Val Ala
  65      70      75      80
Leu Glu Glu Val Phe Ser Leu Pro Pro Ser Val Leu Trp Cys Ser Ala
      85      90      95
Gln Glu Leu Val Gly Ser Glu Gly Ala Tyr Lys Ala Ala Val Asp Ser
      100      105      110
Phe Leu Gln Gln Gln Tyr Val Leu Gly Ala Gly Gly Gly Pro Gly Pro
      115      120      125
Thr Gln Gly Glu Glu Gln Pro Pro Gln Pro Pro Leu Asp Pro Gln Asn
      130      135      140
Leu Ala Arg Pro Pro Ala Pro Ala Gln Thr Glu Ala Leu Ser Gln Leu
      145      150      155      160
Phe Cys Ser Val Arg Thr Leu Thr Ala Lys Glu Glu Leu Leu Gln Thr
      165      170      175
Leu Arg Thr His Leu Ile Leu His Met Ala Arg Ala His Gly Tyr Ser
      180      185      190
Lys Val Met Thr Gly Asp Ser Cys Thr Arg Leu Ala Ile Lys Leu Met
      195      200      205
Thr Asn Leu Ala Leu Gly Arg Gly Ala Phe Leu Ala Trp Asp Thr Gly
      210      215      220
Phe Ser Asp Glu Arg His Gly Asp Val Val Val Val Arg Pro Met Arg
      225      230      235      240
Asp His Thr Leu Lys Glu Val Ala Phe Tyr Asn Arg Leu Phe Ser Val
      245      250      255
Pro Ser Val Phe Thr Pro Ala Val Asp Thr Lys Ala Pro Glu Lys Ala
      260      265      270
Ser Ile His Arg Leu Met Glu Ala Phe Ile Leu Arg Leu Gln Thr Gln
      275      280      285
Phe Pro Ser Thr Val Ser Thr Val Tyr Arg Cys Val Trp Val Cys Ala
      290      295      300
Gly Gly Ala Arg Val Cys Ala Val Cys Gly Cys Val Arg Val Val Ser
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<210> 4327

<211> 551

<212> DNA

<213> Homo sapiens

<400> 4327

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240

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<210> 4328
 <211> 107
 <212> PRT
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<400> 4328
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 20 25 30
 Ala Thr Ser Ser Pro Trp Leu Cys Gly Leu Ser Val Ser His Pro Gln
 35 40 45
 His Leu Asp Gly Leu Arg Val Arg Ala Lys Val Arg Arg Pro Gly His
 50 55 60
 His Thr Ile Pro Ala Thr Thr Arg Trp Leu Phe Leu Glu Ser Glu Gly
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 Gly Arg Arg Cys Leu Gly Ser Trp Gly Cys Leu Gly Ser Glu Pro Val
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 Arg Val Ser Pro Ala Cys Pro Ser Ile Ser Trp
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<210> 4329
 <211> 3192
 <212> DNA
 <213> Homo sapiens

<400> 4329
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<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

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			20					25					30		
Ser	Arg	Ser	Pro	Gln	Arg	Ser	Pro	Leu	Gln	Ser	Ala	Glu	Ser	Ser	Pro
		35					40					45			
Thr	Ala	Gly	Lys	Lys	Leu	Pro	Glu	Val	Pro	Pro	Ser	Glu	Glu	Glu	Glu

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Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
      85              90              95
Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
      100              105              110
Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
      115              120              125
Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
      130              135              140
Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
      145              150              155              160
Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
      165              170              175
Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
      180              185              190
Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
      195              200              205
Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
      210              215              220
Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
      225              230              235              240
Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
      245              250              255
Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln
      260              265              270
Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
      275              280              285
Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
      290              295              300
Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
      305              310              315              320
Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
      325              330              335
Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp
      340              345              350
Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala
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Asp Arg Pro
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<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

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120

gatttaaagt agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca
180

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 420
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 480
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 660
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 720
 aatggaatat catttacaat ttgggatcga tggaccgtac atggaaaaga agatttcacc
 780
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<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

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		20					25					30			
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
	35					40					45				
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

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Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
      85      90      95
Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
      100      105      110
Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
      115      120      125
Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
      130      135      140
Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
145      150      155      160
Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
      165      170      175
Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
      180      185      190
Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
      195      200      205
Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
      210      215      220
Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
225      230      235      240
Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
      245      250      255
Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
      260      265      270
Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
      275      280      285
Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
290      295      300
Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
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Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
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<210> 4333

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 4333

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<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

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Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
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Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
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Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
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Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Glu	Lys	Leu	Gln	Gly	Gln
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Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

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Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe
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His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg
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Arg	Leu	Arg	Asp	Gly	Ala	Tyr	Asn	Met	Val	Arg	Ala	Tyr	Thr	Thr	Gly
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Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg
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<210> 4335

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4335

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240 ctcagacccc acctgcttat cctctatggt gtccagggac tgctgacctt cgggtacctg

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480 ctgcgaagct gcaaccaggt ggcaggtgac ctggtgtccc tgtccatgct gtgcacacgc

540 ctcacgctgc tgctgatggt ggccacacca gccctgatgg gagtgggcac cctgatgggc

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720 gaggagcgtc atggggcaga gctggaagcc tgcgctgcc gggcagagga gctgggcccgc

780 ggcacgcctc tgttccaagg gctttccaac atgccttca actgcatggt cttgggtacc

840 ctatttattg ggggctccct tgtggccgga cagcagctga cagggggaga cctcatgtcc

900 ttctggtggt cctcccagac agtgcaaagc ttctccgtg ttgcaccctg tccgaattcc

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1080

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<210> 4336

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4336

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Pro	Pro	Leu	Lys	Thr	Phe	Val	Pro	Ser	Val	Ser	Pro	Phe	Gln	Leu	Ala
			20					25				30			
Leu	Gly	Ala	Ala	Leu	Val	Asn	Val	Gln	Ile	Pro	Leu	Leu	Leu	Gly	Gln
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Leu	Val	Glu	Val	Val	Ala	Lys	Tyr	Thr	Arg	Asp	His	Val	Gly	Ser	Phe
		50				55				60					
Met	Thr	Glu	Ser	Gln	Asn	Leu	Ser	Thr	His	Leu	Leu	Ile	Leu	Tyr	Gly
65				70					75					80	
Val	Gln	Gly	Leu	Leu	Thr	Phe	Gly	Tyr	Leu	Val	Leu	Leu	Ser	His	Val
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Val	Ala	Thr	Pro	Ala	Leu	Met	Gly	Val	Gly	Thr	Leu	Met	Gly	Ser	Gly
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Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg	Ala	Phe
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Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu	Glu	Ala
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Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu	Phe	Gln
			245					250					255		
Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Met	Val	Leu	Gly	Thr	Leu	Phe
		260					265					270			
Ile	Gly	Gly	Ser	Leu	Val	Ala	Gly	Gln	Gln	Leu	Thr	Gly	Gly	Asp	Leu
		275					280					285			
Met	Ser	Phe	Leu	Val	Ala	Ser	Gln	Thr	Val	Gln	Ser	Phe	Leu	Arg	Val
		290				295					300				
Ala	Pro	Cys	Pro	Asn	Ser	Leu	Pro	Leu	Gln	Ala	Val	Thr	Leu	His	Ala
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Trp	Lys	Asp	His	Pro											

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<210> 4337
 <211> 461
 <212> DNA
 <213> Homo sapiens

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<210> 4338
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 35 40 45
 Arg Arg Glu Gly Ala Thr Cys Cys Ser Val Glu Lys Gln Gln Ser Pro
 50 55 60
 Leu Gln Pro Ala Gln Leu Ala Phe Leu Thr Leu Ser Leu Pro Gly Leu
 65 70 75 80
 Cys Gly Arg Glu Gly Gln Ala Arg Trp Pro Ala Arg Asp Val Val Phe
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<210> 4340
 <211> 1088
 <212> PRT
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<400> 4340

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 35 40 45
 Asn Ser Pro Phe Leu Asn Asn Val Glu Val Glu Gln Glu Ser Phe Phe
 50 55 60
 Glu Gly Lys Asn Met Ala Leu Phe Glu Glu Glu Met Asp Ser Asn Pro
 65 70 75 80
 Met Val Ser Ser Leu Leu Asn Lys Leu Ala Asn Tyr Thr Asn Leu Ser
 85 90 95
 Gln Gly Val Val Glu His Glu Glu Asp Glu Glu Ser Arg Arg Arg Glu
 100 105 110
 Ala Lys Ala Pro Arg Met Gly Thr Phe Ile Gly Val Tyr Leu Pro Cys
 115 120 125
 Leu Gln Asn Ile Leu Gly Val Ile Leu Phe Leu Arg Leu Thr Trp Ile
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 145 150 155 160
 Cys Thr Cys Thr Met Leu Thr Ala Ile Ser Met Ser Ala Ile Ala Thr
 165 170 175
 Asn Gly Val Val Pro Ala Gly Gly Ser Tyr Tyr Met Ile Ser Arg Ser
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 Leu Gly Pro Glu Phe Gly Gly Ala Val Gly Leu Cys Phe Tyr Leu Gly
 195 200 205
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 225 230 235 240
 Gly Gly Glu Ala Ala Ala Met Leu His Asn Met Arg Val Tyr Gly Thr
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 Cys Thr Leu Val Leu Met Ala Leu Val Val Phe Val Gly Val Lys Tyr

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Ile Pro Val Cys Leu Leu Gly Asn Arg Thr Leu Ser Arg Arg Ser Phe		
305	310	315
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355	360	365
Gly Ala Ala Ser Gly Val Phe Leu Glu Asn Leu Trp Ser Thr Tyr Ala		
370	375	380
His Ala Gly Ala Phe Val Glu Lys Lys Gly Val Pro Ser Val Pro Val		
385	390	395
Ala Glu Glu Ser Arg Ala Ser Ala Leu Pro Tyr Val Leu Thr Asp Ile		
405	410	415
Ala Ala Ser Phe Thr Leu Leu Val Gly Ile Tyr Phe Pro Ser Val Thr		
420	425	430
Gly Ile Met Ala Gly Ser Asn Arg Ser Gly Asp Leu Lys Asp Ala Gln		
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Lys Ser Ile Pro Thr Gly Thr Ile Leu Ala Ile Val Thr Thr Ser Phe		
450	455	460
Ile Tyr Leu Ser Cys Ile Val Leu Phe Gly Ala Cys Ile Glu Gly Val		
465	470	475
Val Leu Arg Asp Lys Phe Gly Glu Ala Leu Gln Gly Asn Leu Val Ile		
485	490	495
Gly Met Leu Ala Trp Pro Ser Pro Trp Val Ile Val Ile Gly Ser Phe		
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Phe Ser Thr Cys Gly Ala Gly Leu Gln Thr Leu Thr Gly Ala Pro Arg		
515	520	525
Leu Leu Gln Ala Ile Ala Arg Asp Gly Ile Val Pro Phe Leu Gln Val		
530	535	540
Phe Gly His Gly Lys Ala Asn Gly Glu Pro Thr Trp Ala Leu Leu Leu		
545	550	555
Thr Val Leu Ile Cys Glu Thr Gly Ile Leu Ile Ala Ser Leu Asp Ser		
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Val Ala Pro Ile Leu Ser Met Phe Phe Leu Met Cys Tyr Leu Phe Val		
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Asn Leu Ala Cys Ala Val Gln Thr Leu Leu Arg Thr Pro Asn Trp Arg		
595	600	605
Pro Arg Phe Lys Phe Tyr His Trp Thr Leu Ser Phe Leu Gly Met Ser		
610	615	620
Leu Cys Leu Ala Leu Met Phe Ile Cys Ser Trp Tyr Tyr Ala Leu Ser		
625	630	635
Ala Met Leu Ile Ala Gly Cys Ile Tyr Lys Tyr Ile Glu Tyr Arg Gly		
645	650	655
Ala Glu Lys Glu Trp Gly Asp Gly Ile Arg Gly Leu Ser Leu Asn Ala		
660	665	670
Ala Arg Tyr Ala Leu Leu Arg Val Glu His Gly Pro Pro His Thr Lys		
675	680	685
Asn Trp Arg Pro Gln Val Leu Val Met Leu Asn Leu Asp Ala Glu Gln		

690					695					700					
Ala	Val	Lys	His	Pro	Arg	Leu	Leu	Ser	Phe	Thr	Ser	Gln	Leu	Lys	Ala
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Gly	Lys	Gly	Leu	Thr	Ile	Val	Gly	Ser	Val	Leu	Glu	Gly	Thr	Tyr	Leu
				725						730					735
Asp	Lys	His	Met	Glu	Ala	Gln	Arg	Ala	Glu	Glu	Asn	Ile	Arg	Ser	Leu
			740					745					750		
Met	Ser	Thr	Glu	Lys	Thr	Lys	Gly	Phe	Cys	Gln	Leu	Val	Val	Ser	Ser
			755				760						765		
Ser	Leu	Arg	Asp	Gly	Met	Ser	His	Leu	Ile	Gln	Ser	Ala	Gly	Leu	Gly
			770			775					780				
Gly	Leu	Lys	His	Asn	Thr	Val	Leu	Met	Ala	Trp	Pro	Ala	Ser	Trp	Lys
785					790					795					800
Gln	Glu	Asp	Asn	Pro	Phe	Ser	Trp	Lys	Asn	Phe	Val	Asp	Thr	Val	Arg
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Asp	Thr	Thr	Ala	Ala	His	Gln	Ala	Leu	Leu	Val	Ala	Lys	Asn	Val	Asp
			820				825						830		
Ser	Phe	Pro	Gln	Asn	Gln	Glu	Arg	Phe	Gly	Gly	Gly	His	Ile	Asp	Val
		835				840						845			
Trp	Trp	Ile	Val	His	Asp	Gly	Gly	Met	Leu	Met	Leu	Leu	Pro	Phe	Leu
		850				855					860				
Leu	Arg	Gln	His	Lys	Val	Trp	Arg	Lys	Cys	Arg	Met	Arg	Ile	Phe	Thr
865					870					875					880
Val	Ala	Gln	Val	Asp	Asn	Ser	Ile	Gln	Met	Lys	Lys	Asp	Leu	Gln	
			885						890					895	
Met	Phe	Leu	Tyr	His	Leu	Arg	Ile	Ser	Ala	Glu	Val	Glu	Val	Val	Glu
			900					905					910		
Met	Val	Glu	Asn	Asp	Ile	Ser	Ala	Phe	Thr	Tyr	Glu	Arg	Thr	Leu	Met
			915			920					925				
Met	Glu	Gln	Arg	Ser	Gln	Met	Leu	Lys	Gln	Met	Gln	Leu	Ser	Lys	Asn
			930			935					940				
Glu	Gln	Glu	Arg	Glu	Ala	Gln	Leu	Ile	His	Asp	Arg	Asn	Thr	Ala	Ser
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His	Thr	Ala	Ala	Ala	Ala	Arg	Thr	Gln	Ala	Pro	Pro	Thr	Pro	Asp	Lys
			965						970					975	
Val	Gln	Met	Thr	Trp	Thr	Arg	Glu	Lys	Leu	Ile	Ala	Glu	Lys	Tyr	Arg
			980					985					990		
Ser	Arg	Asp	Thr	Ser	Leu	Ser	Gly	Phe	Lys	Asp	Leu	Phe	Ser	Met	Lys
		995				1000					1005				
Pro	Glu	Trp	Gly	Asn	Leu	Asp	Gln	Ser	Asn	Val	Arg	Arg	Met	His	Thr
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<210> 4341
<211> 693
<212> DNA
<213> Homo sapiens
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 120
 gacctgaggg agccatatgc atcaagttag tgtttctcca taacagaata tttataagag
 180
 aacatgtata gtgcctcttt ttgagttagt cgcacagaca ccaagccctc cttttcacca
 240
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 aatcacttat tttattagga aaaagaggta actgttccaa agtgtagtgt cctttgttga
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<210> 4342
 <211> 103
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Lys Glu Gly Leu Val Ser Val Gly Ile Thr Gln Lys Arg Ala Leu Tyr
 35 40 45
 Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala
 50 55 60
 Tyr Gly Ser Leu Arg Ser Phe Phe Phe His Pro Leu Phe Leu Glu Lys
 65 70 75 80
 Lys Phe Phe Lys Ala Tyr Asn Leu Lys Ser Thr Ser Thr Tyr Ser Arg
 85 90 95
 Asn Ile Val Ala Phe Ser Ile
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<210> 4343
 <211> 499
 <212> DNA
 <213> Homo sapiens

<400> 4343

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 180
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 240
 acccgactcc ctggaggcgg ccaggaccga ccctgtcccg acaaaatgga gttccccgtg
 300
 tggcttcagc tcgcggcgcg ttcccagagc tcctcagtga tccggcttcc ggattgttcg
 360
 cctttcatct catttgccgt tgtccaaatt ctaatttaaa actcatgtgt tacttgctgt
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<210> 4344

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4344

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Arg	Val	Val	Arg	Gly	Arg	Gly	Pro	Phe	Ala	Phe	Arg	Thr	Gly	Arg	Pro
			20				25						30		
Thr	Leu	Gly	Ala	Trp	Thr	Glu	Ser	Ser	Gly	Gly	Arg	Ala	Ala	Gly	Pro
		35				40					45				
Gly	Gly	Glu	Arg	Arg	Thr	Asp	Phe	Arg	Gly	Gly	Pro	Gly	His	Ala	Ala
		50				55					60				
Glu	Thr	Thr	Arg	Leu	Pro	Gly	Gly	Gly	Gln	Asp	Arg	Pro	Cys	Pro	Asp
65				70					75				80		
Lys	Met	Glu	Phe	Pro	Val	Trp	Leu	Gln	Leu	Ala	Ala	Arg	Ser	Gln	Ser
			85					90					95		
Ser	Ser	Val	Ile	Arg	Leu	Ser	Asp	Cys	Ser	Pro	Phe	Ile	Ser	Phe	Ala
		100					105						110		
Val	Val	Gln	Ile	Leu	Ile										
			115												

<210> 4345

<211> 349

<212> DNA

<213> Homo sapiens

<400> 4345

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 120
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ctgaggagtg ggctgncgcg cacggccatc tccgagctcc acgggaacat gtacattgaa
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 349

<210> 4346
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4346
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 Thr Leu Thr His Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val
 35 40 45
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly
 50 55 60
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu
 65 70 75 80
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 His His Cys Ala
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<210> 4347
 <211> 353
 <212> DNA
 <213> Homo sapiens

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 120
 ccccggggct cgcgcgcagc ggggtccagct gcacaaagcc gtccgctccg tcccgcagag
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 240
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 353

<210> 4348
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 4348
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 20 25 30
 Arg Gln Cys Arg Gly Arg Ser Arg Arg Val Ala Arg Ser Ser Leu
 35 40 45
 Pro Ser Pro Ser Ala Arg Pro Gly Arg Gly Gly Arg Pro Gly Pro Gly
 50 55 60
 Gly Ser Ala Gly Cys Pro Gly Leu
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<210> 4349
 <211> 2040
 <212> DNA
 <213> Homo sapiens

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 1920
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<210> 4350
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 4350
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 Phe Pro Pro Leu Ala His Ala Pro Leu Thr Gly Thr Arg Pro Ser Cys
 35 40 45
 Gly Pro Arg Leu Trp His Gly Thr Cys Pro Ser Ala Gln His Gly Pro
 50 55 60
 Gly Ala Thr Leu Leu Ala Glu Gly Gln Gly Pro Leu Cys Arg Gln Trp
 65 70 75 80
 Gly Gly Gly Pro Arg Phe Pro Asp Arg Gly Arg Gln Gly Thr Gly Glu
 85 90 95
 Pro Ala Ser Pro Ser Gly Gln His Gly Pro Gly Gln Thr Glu Gln Gly
 100 105 110
 Pro

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<210> 4354

<211> 586

<212> PRT

<213> Homo sapiens

<400> 4354

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			20					25					30		
Trp	Arg	Lys	Lys	Lys	Glu	Leu	Glu	Glu	Gln	Arg	Lys	Leu	Gly	Asn	Ala
		35					40					45			
Pro	Ala	Glu	Val	Asp	Glu	Glu	Gly	Lys	Asp	Ile	Asn	Pro	His	Ile	Pro
		50				55					60				
Gln	Tyr	Ile	Ser	Ser	Val	Pro	Trp	Tyr	Ile	Asp	Pro	Ser	Lys	Arg	Pro
65					70					75				80	
Thr	Leu	Lys	His	Gln	Arg	Pro	Gln	Pro	Glu	Lys	Gln	Lys	Gln	Phe	Ser
			85					90						95	
Ser	Ser	Gly	Glu	Trp	Tyr	Lys	Arg	Gly	Val	Lys	Glu	Asn	Ser	Ile	Ile
		100					105					110			
Thr	Lys	Tyr	Arg	Lys	Gly	Ala	Cys	Glu	Asn	Cys	Gly	Ala	Met	Thr	His
	115					120					125				
Lys	Lys	Lys	Asp	Cys	Phe	Glu	Arg	Pro	Arg	Arg	Val	Gly	Ala	Lys	Phe
	130				135						140				
Thr	Gly	Thr	Asn	Ile	Ala	Pro	Asp	Glu	His	Val	Gln	Pro	Gln	Leu	Met
145				150					155					160	
Phe	Asp	Tyr	Asp	Gly	Lys	Arg	Asp	Arg	Trp	Asn	Gly	Tyr	Asn	Pro	Glu
		165						170						175	
Glu	His	Met	Lys	Ile	Val	Glu	Glu	Tyr	Ala	Lys	Val	Asp	Leu	Ala	Lys
	180						185					190			
Arg	Thr	Leu	Lys	Ala	Gln	Lys	Leu	Gln	Glu	Glu	Leu	Ala	Ser	Gly	Lys
	195					200					205				
Leu	Val	Glu	Gln	Ala	Asn	Ser	Pro	Lys	His	Gln	Trp	Gly	Glu	Glu	Glu
	210				215						220				
Pro	Asn	Ser	Gln	Thr	Glu	Lys	Asp	His	Asn	Ser	Glu	Asp	Glu	Asp	Glu
225			230						235					240	
Asp	Lys	Tyr	Ala	Asp	Asp	Ile	Asp	Met	Pro	Gly	Gln	Asn	Phe	Asp	Ser
		245						250					255		
Lys	Arg	Arg	Ile	Thr	Val	Arg	Asn	Leu	Arg	Ile	Arg	Glu	Asp	Ile	Ala
		260					265					270			
Lys	Tyr	Leu	Arg	Asn	Leu	Asp	Pro	Asn	Ser	Ala	Tyr	Tyr	Asp	Pro	Lys
	275					280						285			
Thr	Arg	Ala	Met	Arg	Glu	Asn	Pro	Tyr	Ala	Asn	Ala	Gly	Lys	Asn	Pro
	290					295					300				
Asp	Glu	Val	Ser	Tyr	Ala	Gly	Asp	Asn	Phe	Val	Arg	Tyr	Thr	Gly	Asp
305				310					315					320	
Thr	Ile	Ser	Met	Ala	Gln	Thr	Gln	Leu	Phe	Ala	Trp	Glu	Ala	Tyr	Asp

325 330 335
 Lys Gly Ser Glu Val His Leu Gln Ala Asp Pro Thr Lys Leu Glu Leu
 340 345 350
 Leu Tyr Lys Ser Phe Lys Val Lys Lys Glu Asp Phe Lys Glu Gln Gln
 355 360 365
 Lys Glu Ser Ile Leu Glu Lys Tyr Gly Gly Gln Glu His Leu Asp Ala
 370 375 380
 Pro Pro Ala Glu Leu Leu Leu Ala Gln Thr Glu Asp Tyr Val Glu Tyr
 385 390 395 400
 Ser Arg His Gly Thr Val Ile Lys Gly Gln Glu Arg Ala Val Ala Cys
 405 410 415
 Ser Lys Tyr Glu Glu Asp Val Lys Ile His Asn His Thr His Ile Trp
 420 425 430
 Gly Ser Tyr Trp Lys Glu Gly Arg Trp Gly Tyr Lys Cys Cys His Ser
 435 440 445
 Phe Phe Lys Tyr Ser Tyr Cys Thr Gly Glu Ala Gly Lys Glu Ile Val
 450 455 460
 Asn Ser Glu Glu Cys Ile Ile Asn Glu Ile Thr Gly Glu Glu Ser Val
 465 470 475 480
 Lys Lys Pro Gln Thr Leu Met Glu Leu His Gln Glu Lys Leu Lys Glu
 485 490 495
 Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys His Arg Lys Ser Ser
 500 505 510
 Ser Asp Ser Asp Asp Glu Glu Lys Lys His Glu Lys Leu Lys Lys Ala
 515 520 525
 Leu Asn Ala Glu Glu Ala Arg Leu Leu His Val Lys Glu Thr Met Gln
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<212> PRT
<213> Homo sapiens

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Gly Leu Ala Ala Lys Gln Ser Arg Ile Arg Asn Ile Ser Asn Thr Val			
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Met Lys Val Lys Gln Ile Leu Gly Arg Ser Ser Ser Asp Pro Gln Ala			
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Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly			
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Lys Leu Arg Tyr Glu Ile Asp Thr Gly Glu Glu Thr Lys Phe Val Asn			
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Phe Asp Phe Gly Glu Lys Gln Lys Asn Ala Leu Gly Glu Ala Ala Arg			
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Ala Ala Gly Phe Asn Val Leu Arg Leu Ile His Glu Pro Ser Ala Ala			
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Ile Leu Val Phe Lys Leu Gly Gly Thr Ser Leu Ser Leu Ser Val Met			
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Val Lys Gly Val Asp Glu Ser Gly Ala Ser Arg Phe Thr Val Leu Phe			
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<210> 4357

<211> 421

<212> DNA

<213> Homo sapiens

<400> 4357

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<210> 4358

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<212> PRT

<213> Homo sapiens

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Val Met Ala Glu Ala Arg Glu Lys Arg Arg Met Arg Leu Val Val Asp
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 Val Ala Glu Gln Ile Gly Glu Leu Phe Ile His Cys Arg His Gly Cys

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 <212> DNA
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 Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
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 His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
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780
aagttgtcag ccacactggg ggctgcagggt gggctaggca caggtagcag ggcagccgcg
840
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900
ggtccggctc actctgctgc aggctgtggt nggagcttga gcactgagag gtcaaagagg
960
gagctagagg ccacggccgg gggtgccctgt gccaccgctg cgtggccagg atctagccac
1020
caggagtcca ctgccagagg ttctttctcc tctctctctc cccgtttccg ctteagaccc
1080
ttgctcagca tcttgctcac tagcggccaa tcagaacgaa gaggtagcca cccacaacca
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tcgcgagacg cagttctagc ga
1222

<210> 4364

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364
 Asp Arg Arg Thr Asp Val Lys Leu Pro Arg Thr Arg Phe Cys Leu Ser
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 20 25 30
 Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp
 35 40 45
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
 50 55 60
 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
 65 70 75

<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 4365
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 120
 gtcaccgacg acatcaagcc ggggtgtggcg attggcggtc cgctggtccc gacctactac
 180
 cgcagcatgt acccgaaaga agtgcacatg accggcgaca tgatgctgga aaaggtctat
 240
 cgcgagggcg acaagctggt ggcgggtgctg gagaacgaat acaccggcgc caaggaagag
 300
 cgggtggtcg accaggtggt ggtggagaac ggtgtgctgc cggatgagga aatctactac
 360
 gggctcaagg aaggttcgcg caacaagggc cagatcgatg tcgaagccct gttcgcgac
 420
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 469

<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366
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 20 25 30
 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
 35 40 45
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
 50 55 60
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr


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65          70          75          80
Arg Glu Gly Asp Lys Leu Val Ala Val Leu Glu Asn Glu Tyr Thr Gly
          85          90          95
Ala Lys Glu Glu Arg Val Val Asp Gln Val Val Val Glu Asn Gly Val
          100          105          110
Arg Pro Asp Glu Glu Ile Tyr Tyr Gly Leu Lys Glu Gly Ser Arg Asn
          115          120          125
Lys Gly Gln Ile Asp Val Glu Ala Leu Phe Ala Ile Lys Pro Gln Pro
          130          135          140
Ser Leu Asn Thr Leu Asn Glu Glu Ala Ala Gly Asp
145          150          155

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<210> 4367

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4367

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120

atctacgaga cccccgggg cccagacca gccctcctgg agggcacagg gggagcagct

180

ggagctggtg gggctggccg cggggaggat gaagagaacc gagagcaccg tgtccgcagg

240

atccatgtcc ggcgccatat caccacgac gagcgtcttc atggccaaca aattgtcttc

300

aaggactgac ctctgacct cccctgctt tctcttggc ttgggacca gtcctctct

360

ctttccctcc ccttccaga cttttgccc ggctctgctg gccaaagtct gggctcctct

420

ctgtcccttc attgcatggc acagctcact ttggcccttc tccaccgct ccaacccat

480

tgtaacaac atggtacatt cgggcccac cactcagagc ctccgaagc caacattgt

540

ccccaccctg gccctgctc cttccctctc cagctggta agagggattt agaattccct

600

ttctcttttt ttagtgcatc gtccatgcca aagtgtgcgg ccttctctga catcaccaca

660

gtctgagcag cctccgcgt cctgcagggt agtcgcccc ctctcccca ccctcctcc

720

tacctcctta actttgtact agactggcct gggcctgcc agctcagcgt tatcagtctg

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840

aactaaaaaa aa

852

<210> 4368

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4368
 Xaa Leu Gly Arg Gly Met Ala Leu Arg Asp Cys Thr Arg Arg Lys Glu
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 Leu Gly Pro Ala Gly Leu Leu Gln Val Glu Phe Pro Glu Ala Arg Ile
 20 25 30
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
 65 70 75 80
 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
 85 90 95
 Gln Ile Val Phe Lys Asp
 100

<210> 4369
 <211> 1264
 <212> DNA
 <213> Homo sapiens

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 120
 actacagaaa aggaagtagc agaaccactc ctggacctga aggaaggaat agaccagttg
 180
 gagaacaata aaaccttggg ctttatcctg tctactctct tagccattgg gaactttcta
 240
 aatggaacta atgccaagc gtttgagtta agctacctcg agaaggttcc agaagtcaaa
 300
 gacacagtgc acaagcagtc gcttctccac catgtgtgca ccatggtggt agaaaacttc
 360
 ccagacagct ccgatctgta ctgggagatc ggggccatca ccaggtcagc caagggtgac
 420
 tttgatcaac ttcaggataa tttatgtcag atggagagaa gatgcaaagc ttcattggat
 480
 cacctcaagg caattgcaaa acatgaaatg aaaccagttt taaaacaacg gatgtcagag
 540
 ttcttgaaag actgtgcaga gcgaattata attttaaaga ttgtccatag aaggataatc
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 aacagattcc actccttttt actctttatg ggccatccac cttatgcaat tcgggaagtg
 660
 aacataaaca aattctgcag gattattagt gaatttgac tagagtatcg cacaaccagg
 720
 gaaagggttt tgcagcagaa acagaaacgg gcccaaccaca gagagagaaa taagaccaga
 780
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 840
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 900
 aaaacctcgt cccctccag gactccctg cacatacctt ctccatcgtg tcagctgtgt
 960

ttctcttgat tccgtgacac ccggtttatt agttcaaaag tgtgacacct ttctcgggca
 1020
 aggaacagcc cctttaagga gcaaatcact tctgtcacag ttattatggt aatatgaggc
 1080
 aatctgatta gcttcacaga ctgagtctcc acaacaccaa aatatccaga tgtaaaccac
 1140
 aaacttgtag acaaaagaaa gcacagattg tttacctgtt gtggatttta gatgtaacaa
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<210> 4370

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4370

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 20 25 30
 Trp Ala Phe Lys Met Asp Tyr Glu Thr Thr Glu Lys Glu Val Ala Glu
 35 40 45
 Pro Leu Leu Asp Leu Lys Glu Gly Ile Asp Gln Leu Glu Asn Asn Lys
 50 55 60
 Thr Leu Gly Phe Ile Leu Ser Thr Leu Leu Ala Ile Gly Asn Phe Leu
 65 70 75 80
 Asn Gly Thr Asn Ala Lys Ala Phe Glu Leu Ser Tyr Leu Glu Lys Val
 85 90 95
 Pro Glu Val Lys Asp Thr Val His Lys Gln Ser Leu Leu His His Val
 100 105 110
 Cys Thr Met Val Val Glu Asn Phe Pro Asp Ser Ser Asp Leu Tyr Ser
 115 120 125
 Glu Ile Gly Ala Ile Thr Arg Ser Ala Lys Val Asp Phe Asp Gln Leu
 130 135 140
 Gln Asp Asn Leu Cys Gln Met Glu Arg Arg Cys Lys Ala Ser Trp Asp
 145 150 155 160
 His Leu Lys Ala Ile Ala Lys His Glu Met Lys Pro Val Leu Lys Gln
 165 170 175
 Arg Met Ser Glu Phe Leu Lys Asp Cys Ala Glu Arg Ile Ile Ile Leu
 180 185 190
 Lys Ile Val His Arg Arg Ile Ile Asn Arg Phe His Ser Phe Leu Leu
 195 200 205
 Phe Met Gly His Pro Pro Tyr Ala Ile Arg Glu Val Asn Ile Asn Lys
 210 215 220
 Phe Cys Arg Ile Ile Ser Glu Phe Ala Leu Glu Tyr Arg Thr Thr Arg
 225 230 235 240
 Glu Arg Val Leu Gln Lys Gln Lys Arg Ala Asn His Arg Glu Arg
 245 250 255
 Asn Lys Thr Arg Gly Lys Met Ile Thr Asp Ser Gly Lys Phe Ser Gly
 260 265 270
 Ser Ser Pro Ala Pro Pro Ser Gln Pro Gln Gly Leu Ser Tyr Ala Glu

	275		280		285										
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser	Ser
	290				295						300				
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln	Leu	Cys
305				310						315					320
Phe	Ser														

<210> 4371

<211> 907

<212> DNA

<213> Homo sapiens

<400> 4371

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120
gccatcgaca taggcgggtc gttaaccaag ctggcctact attcaacggt acagcacaaa
180
gtcgccaagg tgcggtcttt cgaccactcc ggaaaggaca cagaacgtga acatgagccg
240
ccctatgaga ttccagttca agaagagatc actgctcgac tgcacttcat taagtttgag
300
aatacctaca tcgaagcctg cctggacttc atcaaagacc atctcgtcaa cacagagacc
360
aaggctcatcc aggcgaccgg gggcggggcc tacaagtcca aggacctcat cgaagagaag
420
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480
gtgctcaaga acatccccca tgaggccttc gtgtaccaga aggattccga ccctgagttc
540
cggttccaga ccaaccaccc ccacatttcc cctatcttcc ttgtcaatat cggctctgga
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660
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720
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780
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907

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<210> 4372

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4372

Thr Phe Lys Met Ala Glu Cys Gly Ala Ser Gly Ser Gly Ser Ser Gly

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Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
      35           40           45
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
      50           55           60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
      65           70           75           80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
      85           90           95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
      100          105          110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
      115          120          125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
      130          135          140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
      145          150          155          160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
      165          170          175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
      180          185          190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
      195          200          205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
      210          215          220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
      225          230          235          240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
      245          250          255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
      260          265          270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
      275          280          285
Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
      290          295          300

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<210> 4373

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 4373

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120
ggagtgtgtg agaggaggga gcaaaaagct caccctaaaa catattattc aaggagaaaa
180
gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc
240
tgtgcattgt tgggtgggatt ctgctcgtgt tccaaatcat cgcctttctg gtgggaggct
300

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tgattgctcc agggcccaca acggcagtg cctacatgtc ggtgaaatgt gtggatgcc
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 gtaagaacca tcacaagaca aaatgggtcg tgccttgggg acccaatcat tgtgacaaga
 420
 tccgagacat tgaagaggca attccaaggg aaattgaagc caatgacatc gtgttttctg
 480
 ttcacattcc cctccccac atggagatga gtccttgggt ccaattcatg ctgtttatcc
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 600
 tggacgtttc cctggcttac cgtgatgacg cgtttgctga gtggactgaa atggcccatg
 660
 aaagagtacc acggaaactc aaatgcacct tcacatctcc caagactcca gagcatgagg
 720
 gccgttacta tgaatgtgat gtccttcctt tcatggaaat tgggtctgtg gcccataaag
 780
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 1017

<210> 4374
 <211> 272
 <212> PRT
 <213> Homo sapiens

<400> 4374
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 Gly Leu Ile Ala Pro Gly Pro Thr Thr Ala Val Ser Tyr Met Ser Val
 35 40 45
 Lys Cys Val Asp Ala Arg Lys Asn His His Lys Thr Lys Trp Phe Val
 50 55 60
 Pro Trp Gly Pro Asn His Cys Asp Lys Ile Arg Asp Ile Glu Glu Ala
 65 70 75 80
 Ile Pro Arg Glu Ile Glu Ala Asn Asp Ile Val Phe Ser Val His Ile
 85 90 95
 Pro Leu Pro His Met Glu Met Ser Pro Trp Phe Gln Phe Met Leu Phe
 100 105 110
 Ile Leu Gln Leu Asp Ile Ala Phe Lys Leu Asn Asn Gln Ile Arg Glu
 115 120 125
 Asn Ala Glu Val Ser Met Asp Val Ser Leu Ala Tyr Arg Asp Asp Ala
 130 135 140
 Phe Ala Glu Trp Thr Glu Met Ala His Glu Arg Val Pro Arg Lys Leu
 145 150 155 160
 Lys Cys Thr Phe Thr Ser Pro Lys Thr Pro Glu His Glu Gly Arg Tyr
 165 170 175
 Tyr Glu Cys Asp Val Leu Pro Phe Met Glu Ile Gly Ser Val Ala His

				180				185				190			
Lys	Phe	Tyr	Leu	Leu	Asn	Ile	Arg	Leu	Pro	Val	Asn	Glu	Lys	Lys	Lys
195				200				205							
Ile	Asn	Val	Gly	Ile	Gly	Glu	Ile	Lys	Asp	Ile	Arg	Leu	Val	Gly	Ile
210				215				220							
His	Gln	Asn	Gly	Gly	Phe	Thr	Lys	Val	Trp	Phe	Ala	Met	Lys	Thr	Phe
225				230				235				240			
Leu	Thr	Pro	Ser	Ile	Phe	Ile	Ile	Met	Val	Trp	Tyr	Trp	Arg	Arg	Ile
245				250				255							
Thr	Met	Met	Ser	Arg	Pro	Pro	Val	Leu	Leu	Glu	Lys	Val	Ile	Phe	Ala
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<210> 4375
<211> 1966
<212> DNA
<213> Homo sapiens
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<400> 4375					
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180					
cagcatgtgc	cagagacacg	ctggccaatc	gtgtactcgc	cgcgctacaa	catcaccttc
240					
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300					
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360					
gaggacctgc	tggtggtgca	cacgaggcgc	tatcttaatg	agctcaagtg	gtcctttgct
420					
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480					
aaggtgctga	ggccccctcg	gaccagaca	ggaggaacca	taatggcggg	gaagctggct
540					
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600					
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840					
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1020					
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1080					

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 1860
 ccttctgtgg ggggaaggc tgggaaggcc tgcggcgccc agatcactgc cttagcagta
 1920
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 1966

<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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 20 25 30
 Val Pro His Ser Ser Ser Thr Phe Arg Leu Thr Ala Ser Phe Gly Arg
 35 40 45
 Ala Gly Pro Gly Met Leu His Thr Thr Gln Leu Tyr Gln His Val Pro
 50 55 60
 Glu Thr Arg Trp Pro Ile Val Tyr Ser Pro Arg Tyr Asn Ile Thr Phe
 65 70 75 80
 Met Gly Leu Glu Lys Leu His Pro Phe Asp Ala Gly Lys Trp Gly Lys
 85 90 95
 Val Ile Asn Phe Leu Lys Glu Glu Lys Leu Leu Ser Asp Ser Met Leu
 100 105 110
 Val Glu Ala Arg Glu Ala Ser Glu Glu Asp Leu Leu Val Val His Thr
 115 120 125
 Arg Arg Tyr Leu Asn Glu Leu Lys Trp Ser Phe Ala Val Ala Thr Ile

130 135 140
 Thr Glu Ile Pro Pro Val Ile Phe Leu Pro Asn Phe Leu Val Gln Arg
 145 150 155 160
 Lys Val Leu Arg Pro Leu Arg Thr Gln Thr Gly Gly Thr Ile Met Ala
 165 170 175
 Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
 180 185 190
 Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
 195 200 205
 Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
 210 215 220
 Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
 225 230 235 240
 Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
 245 250 255
 Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
 260 265 270
 Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
 275 280 285
 Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
 290 295 300
 Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
 305 310 315 320
 Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
 325 330 335
 Val Phe Arg Met Val Arg Gly Arg Arg Val Pro Ile Leu Met Val Thr
 340 345 350
 Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
 355 360 365
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 Ser Ala Gln Asn Ser Asp Thr Pro Leu Leu Pro Pro Ala Val Pro
 385 390 395

<210> 4377
 <211> 812
 <212> DNA
 <213> Homo sapiens

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